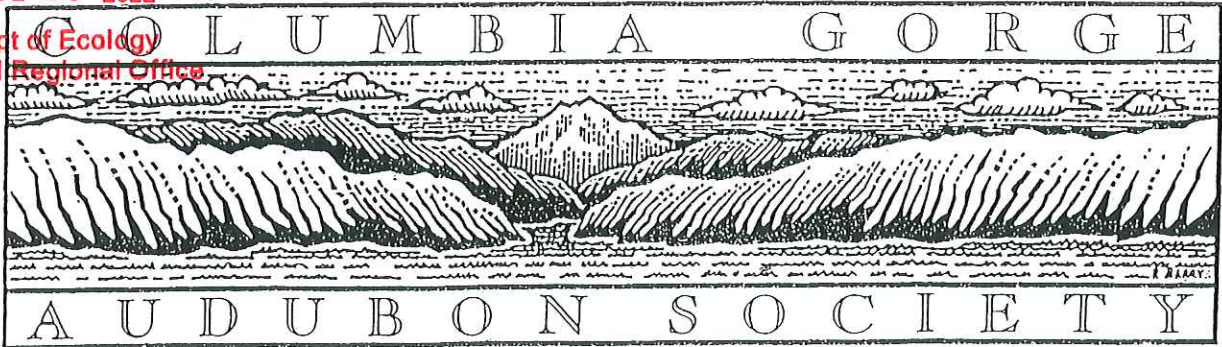


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JUL 20 2022

Dept of Ecology
Central Regional Office



TO: Sage Park
Washington Department of Ecology
1250 West Alder Street
Union Gap, WA 98903-0009

FROM: David Thies, President
Columbia Gorge Audubon Society
PO Box 1393
White Salmon, WA 98672

DATE: July 13, 2022

ATTEN: Goldendale Energy Storage Draft EIS. (Public comment).

Kind People,

ENVIRONMENTAL IMPACT STATEMENTS

EIS's are a hurdle proponents of large projects must leap. Anything and everything that can cause a problem for the project must be solved, contained, managed or hidden. The most expensive solution is to solve the problems. The Department of Ecology will never see an EIS that intentionally exposes problems that can kill a project, even if they exist. We have examined many EIS's over the last 40 years. At first we were shocked to see the misinformation and outright lies provided in those EIS's. We are no longer shocked. We hope the Department of Ecology reviews the pump storage EIS with a healthy skepticism.

WHO COMMENTS, AND WHY IT MATTERS

Most of the information and comments submitted to the Washington Department of Ecology concerning this project will probably come from professionals. It is likely that reviewers will give more weight to that information and those comments than they will to

the information and comments from the general public. Some of those professionals will be engineers, biologists and other specialists hired by the proponent of this pump storage project. The unions are likely to comment, as well as the contractors, local government leaders, local Public Utility District commissioners, residential developers (who are already taking action), local business owners, and a few landowners. These people will all have one thing in common: they have a pecuniary interest in the project, or the proponent is paying for their information and comments. When considering these comments, you should not forget this fact.

On the other hand, comments from the general public (excepting for a few who hope to land a job, or who were advised by their boss to make a public comment in support) have nothing to gain from the project, they are most likely the people to be directly or indirectly negatively impacted in some way by the project, and they are often the most familiar with the land that will be impacted by the project. For these reasons, information and comments from the general public deserve your full attention.

A vast majority of Klickitat County citizens will not be commenting on this proposal. Most of those silent citizens have no conception of the massive build-out of wind, solar and other power providers that will be triggered by this proposed pump storage project if it is approved. Some of these people do know about that impact, but they have given up trying to stop projects that seem predetermined for approval. We wager that a vast majority of this counties residents will be deeply saddened and angered by the future planned for us by industrial energy companies, if that future comes to pass. Other counties that have already experienced this fate have suffered mass migrations, and boarded over business. Land values have plunged due a flood of For Sale signs. The energy companies are pleased to purchase that land at rock-bottom prices. There is a cruelty in ignoring this.

DISMISSING PUBLIC COMMENT

If the intent of public comment is to hear what the public has to say, then those comments should not be dismissed and not considered because they do not "fit the guidelines," or because they fail to make things more convenient for your reviewers. Comments from the general public "come as they are," and their significance as a much under valued commodity deserve to be recognized.

Big projects like this pump storage proposal come with considerable boosterism that is intended to create a sense of inevitability about the project. General public comments can bring a sense of balance to your consideration, they can raise issues proponents do not want you to consider, they can help you keep an open mind about the project under consideration, and they even have the potential to nudge you "out of the box" of "has the proponent followed all the rules?" to a real consideration of the question: "should this project be approved?"

SAFETY FIRST

"Safety First" is a slogan developed by Public Relations experts. This phrase was originally used to encourage employee safety, but now it is often used to deflect criticism of projects. If safety were really the first concern, the public would know by now where the water and debris field would go if a worse case scenario collapse of either of the dams in this project occurred. But proponents do not want to talk about that, and have deflected inquires with assurances that the project will be safe. Deflecting questions about project safety is a hindrance to real safety. The public deserves to know the answer to this question, and they should have been given this information right up front a long time ago. We wonder if the Department of Ecology knows the details of the consequences of complete dam failure of either or both of the proposed dams? You need to know the answer to this question. As a public agency, genuine public safety should be your first concern.

Of course professionals hired by the developers will reassure you that the project will be safe. But history teaches us that dams have failed with tragic results, especially earthen-rock dams as is proposed here. The dams that failed did so because safety was not the highest priority, because of faulty expert judgment, because of improper or inadequate materials, because of poor siting, because of inadequate consideration of conditions or changing conditions, and due to insufficient oversight and regulation. (Regulations often have their birth in project failures.) The well-known "bottom line" of a project does not refer to safety, it refers to the profit margin, and reducing the margin of safety as much as possible increases profit by as much you and other regulators will allow.

Engineers will claim that their project achieves the peak of engineering safety. But new insights (often due to failures) and changing conditions are constantly rendering projects out-dated, even before they are built. And yet, I have never met an engineer humbled by this fact. Of course, engineers are well paid to be positive in their outlook. There is danger in that fact.

CAN ALL THE EXPERTS AND PUBLIC LEADERS BE WRONG?

Experts and public leaders can all be wrong, and here's why: they are not independent actors making independent decisions (they are the "ducks being lined up"), and it is much easier to go with the flow than it is to fight it. This is how boosterism works. Should the project be built? That option is given little or no real consideration. This doesn't just apply to the boosters, the experts, or the public leaders; it also applies to the regulators. This is why dysfunctional and disastrous project are built all the time.

SITING A PROJECT IS OFTEN NOT AN ENGINEERING DECISION

Siting the pump storage dams should arguably be the first engineering issue. Therefore, the public might think these dam sites were chosen specifically to meet the dams engineering needs. They would be wrong. Just like safety, engineering takes a back seat to profit. The key determinates to the establishment of the dam sites are: (1) The lower dam site was chosen because the Aluminum plant land had become available, (2) the upper dam site was desirable because it was located above the lower dam site and owned by the US Army Corp of Engineers, or a single willing private land owner (we have heard both accounts), (3) the water rights at the old aluminum plant site had been purchased by the Klickitat PUD, and, (4) the Bonneville Power Administration transmission lines were close-by.

The point is, these dam sites were not chosen for their engineering desirability, they were chosen due to the economic benefits of the sites. We believe these dam sites could give the engineers significant challenges.

GEOLOGICAL PROBLEMS

The Department of Ecology might not consider geological and engineering problems something you should be concerned with, but you should be. If either or both of these dams should fail, there would be considerable negative impact on the environment; but, of course, then it would be too late for you to do anything about it.

The engineering of the dams seems simple. These dams basically appear to be cut and fill projects. But challenges are not always apparent, nor are they always made apparent even when they are known. Protecting and advancing the project is always the number one priority of the developers.

The soil on the Columbia Hills is noted for its capacity to "slip." This seems to us to not be the best soil to build dams on, or to use as a construction material. A further aggravating factor is the steepness of the surrounding land. The engineers may not consider this a problem because the weather conditions that usually trigger slippage have historically not occurred that often. However, Climate Change means more extreme storms and wetter weather for the Columbia Hills during the expected lifetime of these dams.

If the dams were constructed, weather would not be the only cause of bringing water to the site. There would be the obvious matter of the reservoirs themselves. Is there a plan to seal the reservoir? If so, will that plan work? Will sealing integrity survive an earthquake? If there is no plan to seal the reservoirs, the water could be available for slippage as soon as it is pumped into the reservoirs. If an earthquake should occur the integrity of a seal could be lost, and the water would again be available for slippage.

Hillsides like the Columbia Hills are commonly cut into by vertical draws that erode and enlarge. Why do these draws occur? Often it is because geological faults provide a channel for water run-off that is then further eroded. A review of a map provided by a developer at an earlier public meeting showed a Columbia Hills pump storage dam site located on or near an identified active geological fault. The question of faults needs to be addressed and resolved, and yet when this question came up at that previous public hearing, proponents seemed intent on ridiculing and dismissing the issue. That map has not been seen since. This is not a good approach for getting at the facts. The Columbia Hills is known to be active geologically; this should not be swept under the rug. Combine the fault issue with the slip capacity of the Columbia Hills soil with the steepness of the slopes, and it seems like there could be a problem here. But like we mentioned earlier, when all the infrastructure elements are locked in, the siting of the dams is predetermined, despite the potential weakness of the sites. The Department of Ecology should keep this fact in mind when reviewing the dam sites, and you should do your own research of the potential danger of faults and slippage.

We have raised these issues in previous letters to FERC, and perhaps the removal of the phrase "earthen dams" by proponents and its replacement with the phrase "rock dams" is a response to the doubts we raised. But has anything really changed, other than terminology? If the plan has always been to remove on site material to form the reservoirs dams, how will this change? Will extra rock be brought in from a more rocky location to bulk up the dams, or was a PR decision made to use the phrase "rock dams" because the on site soil includes rocks, and it makes the dams seem safer? The Department of Ecology needs to discover and disclose the answer to this question. If additional rock is to be brought in as a condition to approving the project, that condition should be locked in, and not left open for later renegotiations. The Department of Ecology needs to investigate this issue and give it careful consideration.

Approximately every 500 years the Northwest experiences a major earthquake. This was not known until relatively recently, but now we do have this knowledge. The geologic pressures have been accumulating and we are now well within the period that a major quake is expected to strike. Considering this, the construction of an earthen - and even rock-dams seems imprudent to us. And, as you know, we are not talking small dams here: they will be the height of 17 and 20 story buildings.

When challenged in a public hearing about the safety of the dams, proponents of pump storage responded that at least one of the Columbia River dams is built on a geological fault, and that some of the federal dams incorporate rock fill. This defense, in a public hearing, confirmed what was on one of the maps they displayed in the public hearing: faulting is involved here. The suggestion was, "are we to be required to do better than the federal government?" But when the Columbia River dams were constructed on or near faults, the location of those faults were not known, and the frequency of a major Northwest earthquake was not known, and climate change was unheard of. So yes, considering these facts, the developer should be required to do better.

WEATHER ISSUES

Extreme weather conditions have occurred in Klickitat County. I well recall one weather event when deep snow had a rind of ice so thick you could walk on it, and then we had a rapid warm up and it rained hard. I was living on the western edge of Major Creek Canyon in western Klickitat County at the time and the entire canyon walls were one continuous water fall about six inches deep. A lot of flood damage occurred to hillsides, something you would not normally expect. Roads were flooded and washed out, landslides slipped onto roads, bridges and culverts were washed out and rural residents and whole communities were basically cut off from the rest of the world. Klickitat County engineers had not anticipated that weather event. They thought they had taken sufficient precautions. But they were not the only ones to misjudge the potential of extreme weather. The water run-off in Major Creek Canyon was coming so fast and was so deep that the run-off topped a high railroad fill at the mouth of the canyon and washed it out. The rails were left hanging in mid-air as a reminder that man proposes, but nature disposes.

The Columbia Hills is known to have a history of occasional severe rapid water run-off in the past. Engineers usually try to familiarize themselves with historic facts such as this, but with climate warming the weather is predicted to become more intense and wetter than it historically has been. The fact is, we do not know how severe global warming storms could get here, but the newer predictions have always increased the severity of the storms. This means that extreme weather incidents that once were rare will likely occur more often and will be much more extreme. This could cause a large volume of water with slipping mud and debris to enter the reservoirs. Would the closed loop reservoir system handle such an event that could raise the water level, plug the outlets, perhaps to the point of dam breach? Disasters often occur when several issues combine to create an unexpected overwhelming problem. In this instance, those issues could be: poor siting, global warming, slipping soil, earthquake potential, and chancy construction material. Regulators need to address these issues. (See the included photo provided by the proponent to the Goldendale Sentinel newspaper, showing the proposed reservoirs, the draws, the steepness of the slopes - and unintentionally - the potential for slippage.)

Each professional has his own specialty, and he will not look beyond it. The general manager looks beyond the elements of the project, but he, along with the developer, are probably the people most influenced by the bottom line, which is the profit margin. Engineering and management oversight are thought of as the best way to avert disaster, and in a way it is true, but in another seldom-considered way, it can be the cause of disaster. The Department of Ecology should give real consideration to the weather issue, not just as elements, but also how weather might combine with other factors, because that is how you will be able to realize the potential for disaster, and only then will you be able to protect public safety.

ENGINEERING, ECONOMICS, AND WHERE THE CONSEQUENCES FALL

Engineering is always limited by the bottom line. Once real money is spent on a proposed project (and that has definitely happened) it is critical that development precedes and overcomes all problems, no matter what. This real life fact especially applies to the developer of a project, because the developer must make a profit to survive so he can move on to their next project. The investors that come in later to buy the project, and the electric ratepayers would also like their interests protected; but unlike the developer, they have little or no hands-on opportunity to actually protect their interests. The developer is the only one uniquely situated to protect his own interests. The significance of the fact that developers typically sell their projects when they are completed, and are therefore disconnected from the long-term engineering and economic viability of the project, is seldom given the consideration that it deserves when projects are reviewed. There is danger when the impacts of errors fall on others; it is a situation ripe for the making of errors.

THE ENERGY OVERLAY ZONE

The Klickitat County Energy Overlay Zone (EOZ) was originally billed as a way to identify specific locations where wind power and other alternative energy facilities would not impact the environment. Instead, we got an extensive EOZ that included about two thirds of our large rural county. At the time we wondered, why is the EOZ so large? But soon we realized that instead of protecting most of the counties environment, the real intent of the EOZ was to open most of the county to industrial energy development.

Klickitat County and the energy companies like to give the impression that they are independent of each other, and that the county is there to provide oversight and to protect the interests of county citizens. We follow the general pattern of counties infiltrated and impacted by big corporations with big plans. Our county EOZ was not independently produced as county government leaders often suggest. It essentially arrived with Dana Peck, former county Economic Development Director, and before that, project developer for Kenetech Wind Power. This is how fast tracking of alternative energy projects occurred here, and it is why the fast tracking is still occurring. Huge dams ought not to be fast tracked.

Kenetech Wind Power, "the largest wind power company in the world," (boasted Kenetech at the time) went bankrupt in a manner that suggested scandal and a "mining of green investors." Kenetech is gone, the investors took the hit, and we are still stuck with the EOZ.

CUMMULATIVE IMPACTS AND PUMP STORAGE AS THE LINCH PIN

Bird impacts resulting from alternative energy have only been considered on a per-project basis. This has been like studying the insignificance of felling a single tree while ignoring the significance of denuding a forest.

There should have been a base-line bird population study before alternative energy projects were built in the Northwest, but that did not happen. There should have been a cumulative impact study of the impact of alternative energy on birds by now, but that has not happened either. Two opportunities lost to learn what we had, and what we have lost so far. Our track record has been to follow the formula of, "The least we know, the better." This method of advancing projects suggests dirty secrets not revealed.

The Department of Ecology must cut through the circular argument that the purpose of pump storage is to store electricity. Pump storage is absolutely necessary for the industrial energy production build-out within the Klickitat County Energy Overlay Zone and beyond. This build-out of energy production is the only purpose, and the only reason for pump storage. Pump storage is the linch pin activator for energy build-out. If the resulting impact of energy build-out triggered by pump storage is not given proper consideration in the Environmental Impact Statement for this project, then, by far the greatest environmental impacts of pump storage will be entirely ignored.

If you stand on high ground around here - like on the Columbia Hills, where the project is proposed - you will see that this build out is already in progress. But if pump storage goes in, what you see now will be nothing compared to what would come. Pump storage would eventually result in the energy industrialization of two thirds of Klickitat County rural lands, far beyond what most of us or you could ever conceive. We do not believe that the developers of pump storage will want you to consider these wider negative impacts - to the land, to the people and to the wildlife - that would be triggered by pump storage and the resulting build-out of solar, wind and other energy projects. But these impacts are directly connected to pump storage, because pump storage will make the build-out possible. Build-out depends on power storage, and the Washington State Department of Ecology needs to take a very close look at what the full impact that this pump storage project would cause.

The Department of Ecology, the wildlife agencies, the Bonneville Power Administration and the federal government should work together to make sure that an EOZ and regional bird impact study is finally done. We need to know the full impact of energy build out, and we deserve and need to know it now, while we can still make corrective changes. This pump storage project should be put on hold until we know the complete cumulative impact of this project.

If this project is built without knowledge of the cumulative environmental consequences, a precedence would be established for the reckless construction of other similar pump storage projects that would likely be built throughout the region, and this would multiply the disastrous consequences many fold.

HISTORY OF THE PROJECT AND POSSIBLE HIDDEN PHASES

When alternative energy projects have been proposed in the past, and when later additional phases followed, we often suspected that those later phases were known to the developer from the beginning, but were held back from required regulatory review to secure unwarranted tax credits, and to avoid a more intense environmental review. We believe this has happened here in Klickitat County, and we know a similar situation happened in Oregon just across the Columbia River, because the Oregonian exposed several "independent" wind power projects that were actually one huge project. The pump storage proposal before you is unique in that the first unveiling described a much larger project, but now you are only offered a part of it for review. At least that is what we suspect is going on.

Has the developer offered you a phased plan that leads to the much larger project that was originally presented? If not, you should be skeptical that the presented plan is, in fact, the entire plan. The Department of Ecology should keep this in mind as your attention is drawn to the smaller pump storage project before you. The Department of Ecology needs to determine the actual, complete and final scale of this proposed pump storage project, so that you can give it a proper and complete review. Right now. Not one piece at a time. Not avoiding environmental review triggers, and without offering the developer a later opportunity to declare that the Columbia Hills is already being used for pump storage, so why not more of the same?

We believe that county leaders have a long-standing culture of welcoming every lousy project that knocks on our door. We believe project managers have been emboldened to take chances in this county; like hiding a larger project and presenting an initial stage of that project as the entire project. Many years of experience requires us to press this point home.

THE SIZE OF THE PROJECT AND THE PROBLEM OF PUBLIC RELATIONS

The original pump storage proposal involved five to seven holding reservoirs behind earthen dams with a combined length of approximately seven miles. One, or perhaps two of the dams were to be 500 foot in height, which is a mere 50-foot shorter than Grand Coulee Dam. The size of the project as it was first introduced was alarming and presented a public relations problem. It would still be a PR problem today.

The present proposal involves only two dams with a 14,100 foot combined length. The upper dam would have a height of 175 foot, and the lower dam would be 205 foot tall. While this proposal is less likely to excite alarm, we are still considering dams that are as tall as 17 story and 20 story buildings. The initial fill would require 7,640 acre-feet of water, which amounts to a lot of kinetic energy. You wouldn't want to be in the run-off zone in the event either of these dams suffered a sudden and complete breach.

GETTING AT THE TRUTH ABOUT THE SIZE OF THE PROJECT

The Principle of Economy of Scale is a good tool for getting at the true size of any project. I discovered how project managers and engineers use this principle to their advantage during an appeal of a proposed wind power project that we believed to be a hidden second phase of an earlier project by the same developer. The idea is that suppliers and contractors are told up-front about everything that is required from them, because the larger the orders, the better the deals the managers can negotiate. We believe the desire to reduce costs is so compelling, managers of projects will likely - in some form - make their orders for the entire project, even when later phases of the project are not revealed to the regulators.

Is it too early to order items necessary for this project? Experience has taught us that project managers are often way ahead of everyone else regarding important components of their projects. The question is, how will the ordering be handled? We believe there often is a preliminary or conditional order, and by this method the reduced rate for necessities can be secured for present and later phases. Another aspect about the need for project managers to think ahead is that some of the projects necessary items - like the generators - take time to build.

Managers should be asked pointed questions about economy of scale issues to get at the possibility of "arrangements" for components for the project that go beyond the needs of the project they are presenting to you. This is important, because such questioning could provide positive proof that the real plan is larger than now appears.

Our experience is that securing this information is not easy. There are a lot of dodges. The one we had the most difficulty getting around is the claim of proprietary information, the notion being that the information requested is protected because to hand it over would result in that information falling into the hands of their competitors.

But the Department of Ecology is not a competitor. You are a public regulating agency seeking the truth about a project. Could you not offer the proponent a promise of confidentiality on matters involving economy of scale? You should definitely figure a way out to do that.

Another in-road is the fact that both Klickitat County and the Klickitat County PUD have spent public money on moving this project forward. Also KPUD would provide infrastructure and would use the proposed project for energy storage for their alternative energy projects. Another public entity involved in the project may be the US Army Corp of Engineers. When public money is spent on this project by county government, our public utility district and possibly the Corp of Engineers, this should help open the door to public agencies like yours for the purpose of gather information like pending or conditionally promised orders of items for the project. You should go through that door.

Let's pose some questions with the Principle of Economy of Scale in mind, along with other indicators of a larger project waiting just out of sight.

(1) What arrangements have the proponent made (formally or informally, and not necessarily fully committed to) regarding maximizing the benefits of economy of scale? Of special interest should be the total number of generators, the number of pipes, the amount of wiring and conduit, electrical boxes, etc.

Likewise has the proponent made arrangements with contractors and the unions involving the size of the project? Are they reaching out to favored sub-contractors for hints of bids from in which the size of the project could be a negotiating tool? Has the proponent offered a prospectus with contingency plans for expansion to possible loan sources or investors? Once you start considering this, you could probably come up with other key items to inquire about. The Department of Ecology should ask these questions.

(2) Anyone that has added onto a house knows that it would have been more convenient and less expensive to know beforehand that an addition would be added on later so the plans could take the addition into account. The same thing applies to pump storage. For instance, does the width of the dams exceed what is necessary for their heights? If so, this could be offered as an extra measure of safety, but it could also be a foundation for later height increases. We seriously doubt the proponent would add any measure of safety beyond what regulators require because an important part of controlling the profit margin involves minimizing the expenses.

Since the presentation of the original larger pump storage proposal, has the diameter of the pipe extending between the two reservoirs been reduced to accommodate a smaller project? Is the diameter of the pipe between the two dams larger than necessary to service the project? If so, why go with the wider pipes when savings can accrue with a smaller diameter pipe? This could be another indicator of a larger project.

(3) It would be wise to compare the original project plan with the present plan. Are elements of the earlier larger plan retained in the present project plan? If so, why would they do that? This could indicate a conscious intent to later expand the project.

(4) Yet another example of unexplained expenses may be found in the proposed underground powerhouse. Would the generating capacity of three 400-megawatt

Francis-type pump turbines, involving the production of 1,200 MG's service a larger project? Would the powerhouse provide room for additional generators?

(5) Does the proposed project have the capacity to handle the coming expansion of wind, solar and other power producers in the region? About two thirds of our large rural county is now in an Energy Overlay Zone, and most of that land remains undeveloped. But the new national administration is friendly to renewables, and an alternative energy boom has already appeared over the horizon. This additional energy development would increase demand for pump storage. Will the present plan meet this local demand, or the increase in regional demand? The fact that the original plan was so much bigger suggests that the developers anticipated a continuing growth in renewable and other energy sources, and the smaller plan that you have been presented could be the "foot in the door plan."

(6) Other dams were included in the original plans. Are there any indications that actions are pending on those dams? Are there any agreements or commitments with the landowners of the property the other dams were proposed for? Since the US Army Corp of Engineers seems to have played some role in the upper dam site, they may have information concerning future expansions. They should be asked about that.

The Department of Ecology would not necessarily have to investigate all of these avenues; just finding one item of interest could shake the truth out if there is an unrevealed plan for future expansion of pump storage. At minimum, you should ask pointed questions about the complete size of the project. Put the proponent on the spot. If he is hiding something, force him to lie.

Remember, you need to know the size of the entire project before you can assess the impacts of the project.

ECONOMIC VIABILITY OF PUMP STORAGE AND DECOMMISSIONING

Alternative energy sources like wind and solar produce intermittent power, and require back-up power sources from Columbia River dams, and from natural gas. Now the Goldendale Pump Storage project is being offered as a solution to the problem of intermittent alternative energy power production.

It can reasonably be argued that wind and solar energy facilities in the Northwest offer a solution to a problem that does not exist. Before wind and solar energy arrived on the scene, we had plentiful and inexpensive renewable energy provided by our prepaid BPA dams. The addition of other less efficient renewables that require the expensive replacement of our electric power transmission system, has not only increase the price of renewable energy, they have also decreased our access to the traditionally less expensive BPA hydropower. This has been accomplished through BPA contractual commitments to purchase expensive wind energy (and probably solar energy), even when it means dumping water over the dams and foregoing less expensive renewable hydropower

energy. Economically speaking, this has been a lose-lose proposition for the rate paying public. The BPA's dumping spring run-off water over the dams to honor their contracts with renewables not only costs rate payers more, it also negatively impacts our already reduced salmon runs.

The Northwest, which has been energy self sufficient since the construction of Bonneville Dam, is exporting electric energy to states that lack our plentiful rivers. Some of that exported energy is being produced by wind, solar and other energy sources that would be more productive, more efficient and less costly in the states the NW exports energy to. Our electric ratepayers are picking up part of the tab for this ill-advised system, and the folks receiving our exported power do not have the unsightly facilities for neighbors, and their states do not have to suffer the ecological impacts. This seems unreasonable and unfair to us.

It has always been known that new alternative energy would be more expensive than Columbia River hydropower, and that the new alternative energy producers could not compete with hydropower or even Canadian natural gas when those prices are down. The solution was to give alternative energy producers every tax credit, tax break and subsidy possible, along with so many other inducements they cannot be listed here, excepting for two: the BPA has contractually committed to expensive new alternative energy over cheap renewable river hydropower, and legislation has likewise shackled the public to a phased commitment to purchase new alternative energy over less expensive river hydropower.

When we have suggested that pump storage is not economically viable, the response has always been, "If it was not viable it would not be built." This ignores the disconnect previously discussed between the developer and what eventually becomes of the project once it is sold. The project is built because the developer takes his profit off of the front end, and he is untouched by whether or not the project has long-term economic viability. Economically speaking, shifting the expenses away from the front end of the project through loans and investors, and then selling the project, may be thought of as consolidating front-end profits for a few developers, and dispersing long-term costs to the purchaser, the investors - and more consequently - to the electric rate paying public.

Pump storage is not a perpetual motion device; it does use more energy than it produces. Its saving grace is that it stores intermittent energy. But is it economically viable long-term? An electrical engineer told me that the real cost of wind energy is about twice as much as river hydropower energy, and that pump storage doubles the costs again to approximately four times the expense of river hydropower. Of course, the economic impact on the electric ratepayer is not felt immediately because the costs are dispersed and buffered by long-term subsidies and other economic devices. But eventually those costs will show up on our electric and tax bills. (Yes, lowering taxes on alternative energy raises the tax load falling to the public, and we believe the alternative energy companies and the county have figured out how to lower the energy industries taxes.) This is why the public is being legislatively locked into the costs of wind, solar and

pump storage. Later, when the electric bills become exorbitant, and our taxes increase, there will be a lot of public disbelief, frustration and anger.

We believe that pump storage - instead of being the savior of alternative energy - may be the straw that breaks it's back. Pump storage is incredibly expensive to build. We sincerely doubt that this proposed pump storage project will be able to pay for it's planning, construction, profit taking, management, operations, maintenance, interest on debts and decommissioning before this project reaches it's projected end of life.

Decommissioning is a dirty word for us in this county. Too often the plan for decommissioning here is no plan at all, but rather a suggestion that there will be a plan, and sometimes there is not even that reassurance. If the Department of Ecology believes this is not an issue for your consideration, rest assured it will be a matter of consideration for you if there are insufficient or no funds available for decommissioning at the end of the projects life. We believe there is a reason these energy corporations are LLC's (Limited Liability Corporations). You need to look hard at decommissioning now, because later will probably be too late.

We do not believe that the Department of Ecology should approve a project that dangles on the edge of long-term economic viability, nor one that fails to secure a workable front-end plan for decommissioning. Real decommissioning does not involve some sort of "balloon payment" toward the back-end of the project's lifetime, or a fantasy that scrappers will rush in and do the job for free. A real plan would require monetary payments towards decommissioning starting on day one, and the payments should be largest on the front end of the project when it is most valuable and the profits are the most assured.) We believe that long-term financial viability and decommissioning issues are matters of the public trust, public safety and protecting the environment. The public should not get stuck with another decommissioning bill or another Federal Superfund clean up.

FUTURE PUBLIC REACTION TO THE TRUE COST OF RENEWABLES

What would be the consequences of renewable energy driving the cost of Northwest electricity up four-fold? We believe that the legislative locks on our commitment to renewable energy may well crumble, or the public would have to live with a lot less electricity. Either way, what would then become of all those massive industrial wind and solar projects scattered across our landscape? What would become of pump storage? We believe these projects would become industrial wreckage that would litter our lands without giving any benefit in return, and which would cost huge amounts of public money to clean up. Kind of like the nuclear WHOOPS! debacle.

THE LACK OF TRANSPARANCY

The fact that public hearings come at the end of the planning process says a lot about transparency. Planning is conducted out of sight, first in the board room; then in an engineering office; then with some big investors; then with some loan officers; then with the county commissioners, the PUD, the planning department; and after the plan has taken form, and when commitments for financing and land deals are being made or are already made; finally, the public is brought in and given a peek at the project and is allowed a relatively brief time for public comment. Quite often, the public notices or public hearings occur during a holiday season, just as the FERC notices here for this project occurred. No doubt "think tank" studies have shown that it is best to hide public notices and hearings during holidays because it reduces public comment. Recommending electronic comments is yet another way of limiting public access to the process. Klickitat County has many areas not served by the Internet, and our public library computers were not accessible for almost a year due to the pandemic. We fit a victim profile that energy corporations target.

When it comes to transparency, this project is no different than the others that have preceded it. When wind power came to the Northwest the public was not told that it would necessitate an expensive conversion of our entire electrical transmission system to a "smart" system. Nor were we informed that alternative energy would require gas and possibly even nuclear backup, instead of replacing those energy sources as we had been led to believe. Nor were we told that alternative energy would require pump storage dams and reservoirs. We surmise that the public was not informed of these facts because we (not the developers) would be paying the bulk of the substantial additional expenses for the new alternative power and supporting infrastructure, and we would also be the ones to suffer the intrusion of industrial alternative energy production and it's infrastructure in our rural county.

Another transparency issue is proprietary information, which has already been mentioned. Proprietary information is a way to protect information from falling into the hands of competitors, but we believe it is also a way to keep the public and regulators from information they deserve and should have access to. Wind power corporations withheld information about their high rate of bird kills for years by claiming it to be proprietary information. Misuse of the shield of proprietary information happens, and it deserves pushback.

KPUD AND KLICKITAT COUNTY LEADERSHIP

Klickitat County government and the Klickitat Public Utility District have a long and lamentable history of promoting and supporting large projects that proved a bust, or at least of financial burden to the public. We have little doubt that this factor was considered in siting this proposed pump storage project in Klickitat County. We believe that KPUD has narrowly skirted economic disaster on several of their projects, and they

really got clobbered when they invested in nuclear energy, against our advice, by the way. For a small public utility district, KPUD is juggling a lot of projects, has built a lot of infrastructure, and is staggering under a huge debt load as a consequence. The county has contributed public money to keep the pump storage concept alive, and so has KPUD. This project has sucked up about a million and a half dollars of local public money already, and it will likely cost us more in the future; this despite claims that the public has paid nothing to further pump storage. KPUD has been promised a pay-back for their financial contributions if pump storage goes through; KPUD would transmit a lot of electric energy if the project goes through; and KPUD would provide the water for the project, so KPUD is sure to support pump storage no-matter-what. KPUD comments on this proposed project should be considered in the light of a payback understanding that only works if the project goes through, and with the understanding of KPUD's deep involvement committing them to the project.

BIRDS, RESERVOIRS AND LARGER WIND POWER BLADES

The real impacts of this project will never be known unless a federal and/or state bird study is conducted involving anticipated bird-reservoir-wind power interactions; or, if the studies are not conducted, it will just be a matter of trying to get to all of the slaughtered birds before the scavengers can, so a good count can be taken. And we believe you can forget that the count would be factual. Every trick of the trade has been used throughout the introduction of wind power to assure regulators and the public that there is no bird issue. Before wind towers went in, local newspapers reported that raptors were systematically shot, and at least one of the only trees - a raptor roost tree - on the Columbia Hills was cut down. These activities reduced the baseline enumeration of raptors using the Hills. Furthermore, we have reason to believe that wind power projects anticipated bird-kill studies were "adjusted" until they produced an acceptable low bird kill rate. When the disastrous actual rate of wind power bird kills was leaked to us by two independent sources, that number confirmed that the studies of anticipated bird deaths were faulty in the extreme. We do not believe there is any reason to believe things have changed since those earlier times, because a lot of money is still on the table, and some people will be very intent on securing big chunks of that money for themselves. When you hear and read confident presentations by proponents, keep that in mind.

Is it not a Red Flag to have industrial wind power machines located in a National Audubon Society Important Bird Area? The Columbia Hills Important Bird Area is covered with wind power machines, and more are planned until build-out is complete. The wind power machines have turned the Columbia Hills Important Bird Area into a Bird Kill Zone. There has already been a bird kill rate in the area that is 15 to 17 times more than what was anticipated; rates that so far exceed what is acceptable, that had they been known (or admitted) prior to permitting, the wind power projects could not have been constructed. Too late! The machines are up, and they will continue killing the birds.

Into the industrialized wind "farms" already in the Columbia Hills Important Bird Area comes the plan to build pump storage reservoirs that will only serve to attract considerably more birds into the kill zone. To make matters worse, industry is replacing the older smaller wind power blades with new larger blades. The combination of the attraction of the reservoirs and the larger wind power blades is bound to increase the slaughter of birds beyond anything we have seen so far, and that has been inexcusably bad. Is this really to be the legacy of Northwest renewables?

The department of Ecology should take a look at previous EIS's for wind power in this county, and see what they have to say about the benefits to birds of those earlier, shorter, wind power blades. Those benefits would not apply with the longer blades now being installed.

BIRD KILL SOLUTIONS

There has not been a workable solution to the bird kill problem since day one of the first wind power project. Plenty of solutions to the bird kill problem have been proposed and promised, but few were implemented and those that were have not provide the solution. The reason for this is that the purpose of the proposed solutions was never to solve the bird kill problem, but rather to solve the regulator and the permit problem. We call the bird kill solutions "wink-wink solutions."

Other dodges to the bird kill problem are: defining the problem away, as in, "What does wind power/bird kill issues have to do with pump storage?"; claiming that it is not a problem at all (Pleez!); claiming that proponents have the solution to the problem (they do not); claiming off-site and on-site mitigation (saving off-site land not threatened yet, and making minor adjustments on-site that amount to nothing); claiming that they have the perfect site for avoiding the killing birds (they don't), pointing to other power sources or glass buildings and noting the damage that they inflict (as if that justified their own bird kills); and on and on. What these claims all have in common in the notion that the Department of Ecology should be reassured that the bird issue will not be a problem, so the DOE can look the other way while the proponents pump storage project slides through.

Proper siting of projects has always offered the best possible solution to the bird kill problem, and it is the only solution that is never sincerely embraced and acted upon. (Reconsider the actual siting determinants of pump storage. They have nothing to do with siting to avoid bird kills.) Of course, project developers have always given recognition to the critical significance of proper siting of projects to avoid bird kills, but they inevitably torture the meaning of proper siting so that their site just happens to be the one that will cause the fewest bird kills. The truth is that the Columbia Hills Important Bird Area is a haven for birds. Wind power should not be sited there. Pump storage should not be sited there. And especially, both of them should not be sited there together

on the Columbia Hills. Can it really be so difficult to see the truth of this? Any evaluation that ignores this reality has entered the realm of fantasy.

NATIONAL AUDUBON SOCIETY AND THEIR IMPORTANT BIRD AREA

The sad fact is that National Audubon Society tried to talk Columbia Gorge Audubon Society into dropping our nomination for a Columbia Hills Important Bird Area (IBA), and they tried to pressure their own avian experts into refusing our nomination for this IBA, despite overwhelming evidence of the significance of the Hills for birds. But the avian experts did not back down, and neither did we. We later learned that at this very time, a new member had joined the National Audubon Board. Coincidentally, this new board member was a lawyer for a corporation proposing a wind power project on the Columbia Hills. New board members are expected to bring a substantial gift to National Audubon Society when they join the board, a system ripe for corruption. Subsequently we had a show-down with then Audubon president, John Flicker, and as a consequence we disaffiliated from National Audubon Society and became an independent chapter, just like Portland Audubon did, and just like many other local chapters did.

We bring this to your attention for two reasons. First, someone may ask, "If the Columbia Hills Important Bird Area is really so important for birds, why haven't we heard from National Audubon Society?" And second, we want you to realize just how cunning proponents can be, and how far they are willing to go to line up all their ducks.

PERMIT CONDITIONS AS ENVIRONMENTAL SOLUTIONS

The Department of Ecology may believe that county conditions for approval of this project will serve to solve environmental and other problems. It is our experience that that is not the case in Klicitat County. Conditions are demanded and accepted until the project is permitted, and then they are appealed and dropped. Of course, when the conditions are mandated it is done with public fanfare, but when they are dropped the public hears nothing about it. Do not depend on conditions to protect the environment or anything else, because they won't.

RECOMMENDATIONS

We urge the Department of Ecology to require a mandatory independent bird study of anticipated reservoir - bird - wind machine interactions, to be conducted by public wildlife agency bird biologists. Private study firms should not be used because most of their income comes from developers, and they will be seeking employment with those developers again in the future. The design and implementation of this study should

receive real time advisor over-sight by eminent avian experts who have not and will not work for wind power developers. In the event the study is inconclusive (which is unlikely), the opinion of these avian experts on the wisdom of mixing birds with reservoirs and wind power machines should be requested and considered. This study, and the opinions of the avian experts should be completed, compiled and considered by the Department of Ecology prior to a decision on this pump storage project.

We recommend that the developer of this pump storage project be required to pay for this study, and that they have no contact or influence with the agency or the bird experts what-so-ever regarding any aspect of the study. As an alternative, wind and solar companies could be asked to also contribute funds, as they would be major beneficiaries of pump storage. Paying for this study should not be an undue burden on the developer(s) because they are always being required to hire studies. The difference is that this would be an independent study that would not easily be influenced by the developer(s). We have seen too many of the other kind of bird studies, and they only served to hide the truth.

We recommend a moratorium on this pump storage project until the results of this study are available, and a proper review has been completed.

We recommend that the Department of Ecology request an independent regional cumulative impact study of bird-reservoir-wind machine interactions, and bird-solar interactions. The US Fish and Wildlife Service should conduct this study, and the alternative energy developers should help fund it. This study would include an anticipated growth of wind, solar and other energy facilities throughout the region due to pump storage, and the study would include anticipated additional pump storage facilities that would service regional energy producers. The Department of Ecology needs to know how to properly limit this build-out, and it needs to know when to halt build-out before the impacts are too damaging. This study needs to clearly delineate how much negative impact is acceptable, and where the line should be drawn. The premise that build-out may have already gone too far should not be dismissed out-of-hand.

We recommend that involved federal and state agencies support a regional moratorium on all pump storage proposals, and all solar and wind projects within the state and the region until the results of the regional study are available for review and the real impacts are known.

Furthermore, we also recommend a sociological survey be conducted to gauge the opinion of the public living in counties that already are, or will, be impacted by wind power, solar power, and pump storage. People living in counties having these facilities should be asked their opinion. How do they feel about having these facilities for neighbors? And people not yet living next to a project should be asked if they would be all right with a wind power, solar power or a pump storage facility located near to them? The people most impacted deserve to be heard. Perhaps one of our universities would be interested in doing the survey, but there needs to be a firewall between industry funding

and the sociologists doing the study. Grants and gifts to universities can and do influence studies.

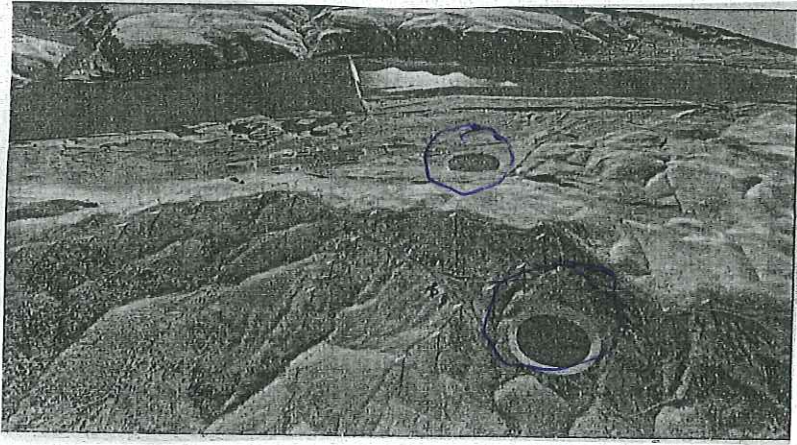
The failure to conduct real cumulative impact studies of alternative energy projects and expected projects facilitated by pump storage has been irresponsible, and if not criminal, it should be. For almost forty years Columbia Gorge Audubon Society has tried to help alternative energy producers to actually be better than the energy producers they seek to replace; but we have failed in those efforts. At some level, deep within the planning and review processes, we have come to believe the over-riding reason the studies have not been conducted has been to prevent the public from learning the level of damage being inflicted by irresponsible new alternative energy projects. The Washington Department of Ecology and the Bonneville Power Administration, along with the federal and state wildlife agencies, owes the public these studies because they provide the only path for alternative energy to become both a good neighbor and environmentally acceptable.

Sincerely,



Dave Thies, President
Columbia Gorge Audubon Society

LOWER RESERVIOR



UPPER RESERVIOR

