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BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 63-34403, 63-34652, 63-34897 AND 63-34900 IN THE NAME OF CAT CREEK ENERGY LLC	DECLARATION OF ANTHONY M. JONES IN SUPPORT OF SBAR RANCH, LLC AND THE DISTRICT AT PARKCENTER, LLC's RESPONSE TO MOTION FOR PROTECTIVE ORDER AND RENEWED MOTION FOR RULE 40.05.b. ORDER FOR APPLICANT TO SUBMIT COMPLETE RULE 40.05 INFORMATION

ANTHONY M. JONES, being first duly sworn, deposes and says:

1. I hold a B.S. degree in economics from Idaho State University and an M.A. degree in economics, from the University of Washington.

2. As detailed in my *curriculum vitae* attached hereto as Exhibit A, I have substantial experience and expertise in the field of energy project economics.

3. Currently, I am the Principal of Rocky Mountain Econometrics, a consulting energy economics firm in Boise, Idaho.

4. I was retained by SBar Ranch, LLC and The District at ParkCenter, LLC to evaluate Cat Creek Energy LLC's claims of proprietary and trade secret information in its June 16, 2020,

Motion for Protective Order and associated Declarations in this proceeding. In connection with my work, in addition to reviewing the Motion for Protective Order and associated Declarations, I also have reviewed Cat Creek's Applications for Water Right Permit Nos. 63-34403, 63-34652, 63-34897 and 63-34900, Idaho Code 42-203A(5)(d), Idaho Water Appropriation Rule 40.05(f) and *Shokal v. Dunn,* 109 Idaho 330, 707 P.2d 441 (1985), as well as other publicly available information and pertinent materials available to me.

5. I reached the opinions presented here by applying accepted methodology in the field of energy economics. The opinions expressed here are my own and are based on the data and facts available to me at the time of writing. I hold the opinions set forth here to a reasonable degree of economic science certainty.

6. The Cat Creek project will be located geographically in Idaho Power Company's ("IPC") territory and will connect to the Western Grid. When generating, it will produce roughly 25% as much power as does IPC total. It will produce more power than Brownlee Dam, IPC's largest hydro project and nearly as much as IPC's largest coal plant, Jim Bridger.

7. When pumping water back to its reservoir, the Cat Creek project will consume even more power than it generates, comprising approximately 25% of IPC's total firm load, roughly equivalent to the load of the Treasure Valley, **on top of IPC's existing firm load.**

8. The Pacific Northwest, where Cat Creek's project will be located, has the most intensively developed hydroelectric energy industry in the United States, perhaps the world. The major players, Bonneville Power Administration, Avista, IPC, and Pacificorp, all have hydro projects that also provide energy storage that can be used for load shaping and energy storage. They all have programs in place to provide, both for themselves and for independent power providers, the exact same service CCE is proposing.

9. Pumped storage is reviewed on page 54 of IPC's most recent 2019 Amended Integrated Resource Plan ("IRP"). In the IRP, IPC gives pumped storage an economic thumbs down, noting, "Historically, the differential between peak and off-peak energy prices in the Pacific Northwest has not been sufficient enough to make pumped storage an economically viable resource." (Page 54 of IPC's most recent IRP is attached hereto as Exhibit B.) In the IRP, IPC puts the levelized cost of pumped storage at around $175 /MWh. That cost compares unfavorably with open market prices averaging less than $30/MWh and load shaping service from the major players for less than $50/MWh.

10. Given that the process of storing energy via the pump storage process has been developed and well understood for decades; that the necessary pump-turbines, control mechanisms, *etc.* are commercially available from multiple vendors offering nearly identical performance criteria; that at least 24 other pump-storage projects, many of similar sizes and configurations, all connected to the same Western Grid, all dedicated to serving the same daily mismatches in the supply and demand curves, are currently working their way through the application process; that competition for and supply of investment funding is universal and seemingly instantly balancing, nothing presented suggests that CCE's solution to energy storage is an improvement on the same process studied and shelved by the region's major utilities or superior to the other projects being promoted in other areas. One would expect that a dramatic technological improvement to pumped storage would be supported by one or more patent applications.

11. Bottom line, against this backdrop, Cat Creek Energy needs to be able to establish that it will be able to cost effectively participate in this competitive energy marketplace. If there

is no assurance that its project will be economically viable, there can be no reason to expect that it is reasonably probable financing can be secured.

12. At approximately 5 years away from operation, as I understand Cat Creek Energy claims to be based on a review of its project timeline provided as CCE-X-00039, it should be able to provide the full terms of its capital funding arrangements, including the amount and terms of debt commitments, the amount and terms of equity commitments, and the interest rates, amortization schedules, provisions for default, anticipated cash flows, prospective balance sheets, the cost and income relationships associated with CCE's wind, solar, pump-storage, irrigation, municipal water, and irrigation district operations, *etc.*, for the life of the project. The only potentially confidential items that may need redaction would be the identity of the parties committing to provide the capital. This redacted information should be provided to the Hearing Officer, however.

I declare under penalty of perjury that the foregoing is true and correct.

DATED THIS 30th day of June, 2020.

Anthony M. Jones

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the date indicated below I caused to be served a true copy of the foregoing DECLARATION OF ANTHONY M. JONES IN SUPPORT OF SBAR RANCH, LLC AND THE DISTRICT AT PARKCENTER, LLC'S RESPONSE TO MOTION FOR PROTECTIVE ORDER AND RENEWED MOTION FOR RULE 40.05.B. ORDER FOR APPLICANT TO SUBMIT COMPLETE RULE 40.05 INFORMATION with Exhibits by pre-paid U.S. Mail and email addressed to the following:

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Dated: June 30, 2020

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SUMMARY

A high level analytical education with over 35 years of experience managing programs and advising government leaders and senior management in medium to large corporations in the areas of economics, statistics, strategic planning, operations planning, finance, marketing, and marketing research.

MAJOR PROJECTS

SUNSET FALLS PRELIMINARY APPLICATION to FERC **2012 - 2016**
Hydropower Reform Coalition, Seattle, Wa.

- Snohomish PUD proposed to install a hydroelectric generation plant at Sunset Falls near Index, WA. In the process the plant would starve Sunset Falls of water for much of the year.
- Rocky Mountain Econometrics (RME) demonstrated that, contrary to SnoPUD's claims the project had limited ability to augment SnoPUD's energy supplies and would suffer financial losses well into the future.

DATA ANALYST SUPERVISOR **2009 - 2014**
Idaho State Department Of Health And Welfare, Division Of Behavioral Health

- Developed "Super Bagel" database to provide, for the first time, an in house mechanism for monitoring budgets and researching the efficacy of substance use treatment methods.
- Performed cost-benefit analyses of substance use treatment on modality-by-modality basis.
- Performed cost-benefit analyses of the Suicide Prevention Hotline.

BEAR RIVER HYDRO PROJECT **2011 - 2012**
Idaho Rivers United, Et Al.

- Twin Lakes Canal Company applied to the Federal Electric Regulatory Commission (FERC) for permission to install a hydroelectric dam on the Bear River. The dam would have created a 12,647 acre-ft. water storage reservoir by inundating the last free flowing section of the river.
- Rocky Mountain Econometrics analysis detailed that, contrary to TLCC's conclusions, the project was flawed and not economically feasible.
- RME involvement included testimony before the FERC hearing officers.
- FERC ultimately denied Twin Lakes' application.

ENLOE DAM **2011 - 2018**

American Whitewater, et al.

- As part of application to FERC to rehabilitate and relicense the Enloe Dam on the Similkameen River my task involved detailing the economic costs and benefits associated with restarting production at the site, including the economic losses to tourism associated with eliminating esthetic flows over the waterfall.
- In 2018 Okanagon PUD confirmed RME's conclusion that Enloe energy would be excessively expensive and terminated the project while still in the planning stage.

MAINTENANCE OF SPOKANE FALLS AESTHETIC WATER FLOW **2007 - 2009**

Center For Justice, Spokane, WA.

- As part of the FERC relicensing of Avista's power plants on the Spokane River, my task involved detailing the economic costs and benefits associated with maintaining esthetic water flows over Spokane Falls, in Spokane, WA.
- Developed database of American waterfalls sufficient to perform multiple linear regressions of viewer days relative to daily water flows.
- In the course of this project I became the first economist to directly link in a non-arbitrary fashion public willingness to pay for enhanced aesthetics associated with a natural resource. Further, the value of the esthetics associated with water flowing over Spokane falls to the Spokane tourism industry approaches $100 million.

BPA WILDLIFE HABITAT MITIGATION SETTLEMENT **2007 - 2008**

State Of Idaho, Department of Fish And Game, Shoshone-Bannock Tribes And Shoshone-Paiute Tribes, Boise, Pocatello, and Duck Valley, ID.

- Economic and policy analysis provided basis for potential settlement of outstanding wildlife mitigation obligations, i.e., a lump-sum payment from BPA to a dedicated fund managed by the Department and Tribes to expedite acquisition of wildlife habitat thus fulfilling Bonneville's wildlife habitat mitigation obligation for five Bureau of Reclamation dams and reservoirs in southern Idaho.
- Demonstrated that if each HU/acre lost is replaced by 1 HU/acre (Bonneville Power Administration policy), the range of estimated costs to replace 42,742 lost wildlife HUs in southern Idaho is approximately $123 million–$993 million (2008$).

FISH PASSAGE AT IDAHO POWER'S HELLS CANYON COMPLEX **2005 – 2007**

Northwest Resource Information Center, Eagle, ID.

- Economic analysis associated with relicensing the Idaho Power Hells Canyon Complex
- Successfully demonstrated the net benefit to southwest Idaho and eastern Oregon of providing fish passage to traditional spawning beds.

WIND FARM ELECTRICITY GENERATION **2003 - 2004**

Windland, Boise, ID.

- Developed policy analysis and demand and pricing model for Windland Inc. The finished model incorporated median water in the Snake River, historic wind in specific southern Idaho wind farm sites, together with time of day, and time of year western energy demand and pricing to successfully predict Windland's potential to successfully compete with other existing energy providers.

BENEFITS OF LOWER SNAKE RIVER SALMON **2001 – Current**
Northwest Resource Information Center, Eagle, ID.

- Economic and Policy Analysis of Economic Effects of Breaching / Not Breaching the Army Corps of Engineers' Lower Snake River Dams in SE Washington,
- Successfully vetted and recalculated the U.S. Army Corp. of Engineers 1,500 page, $20 million study on the potential effects of breaching the Washington State Snake River dams to provide a measure of the impact on Idaho's economy. Potential Idaho beneficial impacts exceed $1 Billion.
- RME demonstrated fatal flaw in COE's navigation forecast (COE forecast required more wheat acreage than exists in Idaho and all of the plains states combined.).
- Finished report and periodic updates are published and distributed to the Idaho Legislature, and northwest governmental agencies, business leaders, and media.

DRAWDOWN REGONAL ECONOMIC WORK GROUP (DREW/FREIS) **1998 – 2000**
Idaho Governors Phil Batt And Dirk Kempthorne, Boise, ID.

- Provided technical economic advice to the staffs of the two governors on issues associated with the Unites States Army Corp of Engineers (COE) "Feasibility Report - EIS on Snake River Salmon, Drawdown Regional Economic Work Group"

ARROWROCK DAM, IDAHO, GENERATION RETROFIT **2000**
Nampa-Meridian Irrigation District, Nampa, ID.

Developed the cost / benefit analysis associated with retrofitting Arrowrock Dam for electricity production.

NORTHWEST MARKET CONDITIONS AFTER DEREGULATION **1996 - 1997**
Rocky Mountain Econometrics, Boise, ID.

- The only economist to successfully forecast the impact of deregulating the west coast wholesale electricity market. Year-one price forecast accurate to 5 decimal places.
- Publication of the paper included presentation to the Idaho Joint Legislative Committee on Deregulation and other public forums across southern Idaho.

STAFF ECONOMIST
Idaho Public Utilities Commission, Boise, ID. **1991 - 1996**

- Analysis and testimony before the Idaho PUC for rate cases involving Idaho Power Compay, Avista Corporation, and Pacificorp, and other regulated Idaho Utilities.

SOFTWARE PROFICIENCY

MS Word, Word Perfect, Excel, Access, PowerPoint, PageMaker, Quark, Photoshop, Freehand, Illustrator, Acrobat, Adobe Dreamweaver and Flash, FileMaker Pro, and others, in both Mac and Windows DosBox environments.

EDUCATION

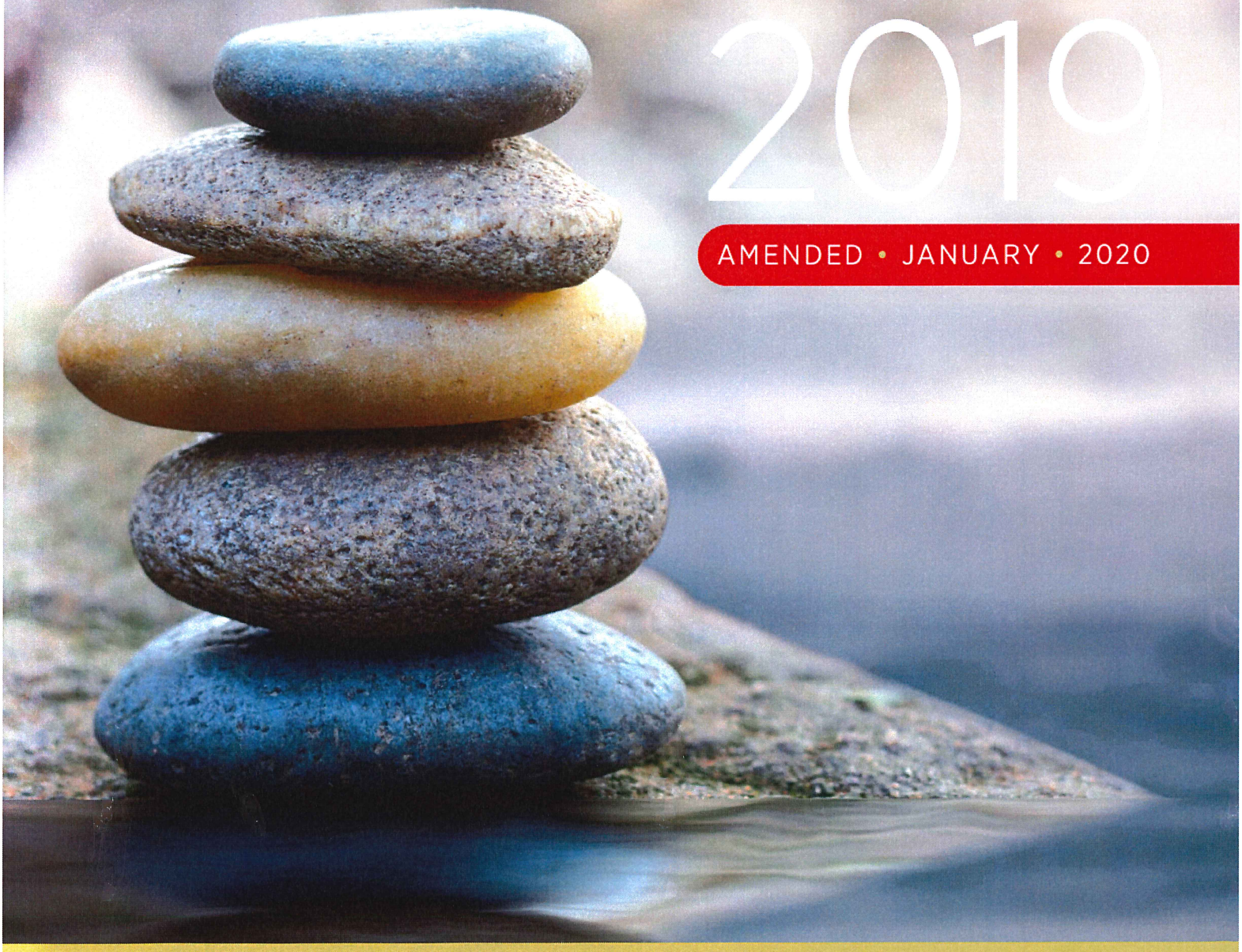
Bachelor of Science – Economics — Idaho State University, 1975
Master of Arts – Economics — University of Washington, 1981

REFERENCES

Available upon request

IDAHO POWER.
An IDACORP Company

INTEGRATED RESOURCE PLAN



2019

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EXHIBIT B

For the 2019 IRP, Idaho Power modeled Li battery technology in two arrangements. The first arrangement assumes 5 MW capacity with 20 MWh (4 hours) of energy. The capital-cost estimate for Li battery storage is $1,813 per kW. The 10-year LCOE, evaluated at an annual capacity factor of 11 percent, is $232 per MWh[10].

The second Li battery-storage arrangement modeled in the 2019 IRP analysis has a capital-cost estimate of $2,947 per kW. The 10-year LCOE, evaluated at an annual capacity factor of 23 percent, is $250 per MWh. This arrangement assumes 5 MW capacity with 40 MWh (8 hours) of energy.

Pumped-Storage Hydro

Pumped hydro storage is a type of hydroelectric power generation that is capable of consuming electricity during times of low value and generating electricity during periods of high value. The technology stores energy in the form of water, pumped from a lower elevation reservoir to a higher elevation. Lower cost, off-peak electricity is used to pump water from the lower reservoir to the upper reservoir. During higher-cost periods of high electrical demand, the water stored in the upper reservoir is used to produce electricity.

For pumped storage to be economical, there must be a significant differential (arbitrage) in the value of electricity between peak and off-peak times to overcome the costs incurred due to efficiency and other losses that make pumped storage a net consumer of energy overall. Typical round-trip cycle efficiencies are between 75 and 82 percent. The efficiency of a pumped hydro-storage facility is dependent on system configuration and site-specific characteristics. Historically, the differential between peak and off-peak energy prices in the Pacific Northwest has not been sufficient enough to make pumped storage an economically viable resource. Due to the recent increase in the number of wind and solar projects on the regional grid, the amount of intermittent generation provided, and the ancillary services required, Idaho Power will continue to monitor the viability of pumped hydro storage projects in the region. The capital-cost estimate used in the 2019 IRP for pumped hydro storage is $1,964 per kW, and the 75-year LCOE is $175 per MWh.

[10] The levelized energy costs for energy storage are driven overwhelmingly by fixed costs, particularly capital costs. Consequently, levelized costing for energy storage technologies in this chapter does not include the cost of recharge energy. While not insignificant, recharge energy costs are expectedly relatively small given the utilization of energy storage to recharge during acute periods of grid energy abundance.

EXHIBIT B