Omaha Public Power District

OPPD BOARD OF DIRECTORS

BOARD MEETING MINUTES

April 16, 2026

The regular meeting of the Board of Directors of the Omaha Public Power District ("OPPD" or "District") was held on April 16, at 5:00 p.m. at the Omaha Douglas Civic Center, 1819 Farnam Street, 2nd Floor Legislative Chamber, Omaha, Nebraska and via WebEx audio and video conference.

Joining in person were Directors A. E. Bogner, M. J. Cavanaugh, M. R. Core, S. E. Howard, J. L. Hudson, C. C. Moody, M. G. Spurgeon and E. H. Williams. Also present were L. J. Fernandez, President and Chief Executive Officer, and T. Thalken of the Fraser Stryker law firm, General Counsel for the District, E. H. Lane, Sr. Board Operations Specialist, and other members of the OPPD Board meeting logistics support staff. Chair M. R. Core presided, and E. H. Lane recorded the minutes. Members of the executive leadership team joining in person included K. W. Brown, C. V. Fleener, G. M. Langel, T. D. McAreavey, and T. R. Via.

Board Agenda Item 1: Chair Opening Statement

Chair Core gave a brief opening statement, including reminders for using the WebEx audio and video conferencing platform.

Board Agenda Item 2: Safety Briefing

J. Clark, Manager, Protective Services, provided safety reminders.

Board Agenda Item 3: Guidelines for Participation

Chair Core then presented the guidelines for the conduct of the meeting and instructions on the public comment process using WebEx audio and video conferencing features.

Board Agenda Item 4: Roll Call

Ms. Lane took roll call of the Board. All members were present via WebEx.

Board Agenda Item 5: Announcement regarding public notice of meeting

Ms. Lane read the following:

> *"Notice of the time and place of this meeting was publicized by notifying the area news media; by publicizing same in the Omaha World Herald and Nebraska Press Association, OPPD Outlets newsletter, oppd.com and social media; by displaying such notice on the first level of the OPPD administrative offices; and by e-mailing such notice to each of the District's Directors on April 10, 2026.*

A copy of the proposed agenda for this meeting has been maintained, on a current basis, and is readily available for public inspection in the office of the District's Corporate Secretary.

Additionally, a copy of the Open Meetings Act is available for inspection on oppd.com."

Board Consent Action Items:

6. Approval of the December 2025, January 2026 and February 2026 Financial Reports, March 2026 Meeting Minutes, and April 16, 2026 Agenda
7. Standing Committee Annual Charter Review Revisions and Non-Substantive Board Policy Updates – Resolution No. 6755
8. RFP 6235 - Resources for Underground Residential and Commercial Developments – Labor Contract Award to Nielsen Construction – Resolution No. 6756
9. SD-14 Retirement Plan Funding Monitoring Report – Resolution No. 6757
10. SD-4: Reliability Monitoring Report – Resolution No. 6758

It was moved and seconded that the Board approve the consent action items.

Chair Core noted the Board discussed the action items during the All Committees meeting held on Tuesday, April 14.

Chair Core then asked for public comments in person and on WebEx. There were no comments.

Thereafter, the vote was recorded as follows: Bogner – Yes; Cavanaugh – Yes; Core – Yes; Howard – Yes; Hudson – Yes; Moody – Yes; Spurgeon – Yes; Williams – Yes. The motion carried (8-0).

Board Discussion Action Item

11. SD-5: Customer Satisfaction Monitoring Report – Resolution No. 6759

Director Howard moved to approve the discussion action item, and it was seconded by Director Bogner. Chair Core asked for Board member questions or comments. Director Spurgeon and Director Moody made comments of appreciation.

Chair Core then asked for public comment. There was one in person.

David Begley, 4611 S. 96th St, provided comments on renewable energy and higher energy costs.

Chair Core asked for comments from the Board. There were no additional comments.

Thereafter, the vote was recorded as follows: Bogner – Yes; Cavanaugh – Yes; Core – Yes; Howard – Yes; Hudson – Yes; Moody – Yes; Spurgeon – Yes; Williams – Yes. The motion carried (8-0).

Board Discussion Action Item

12. 2026-2027 Debt Issuance Authorization – Series and Sales – Resolutions No. 6760 and 6761

Director Moody moved to approve the discussion action item, and it was seconded by Director Cavanaugh. Chair Core asked for Board member questions or comments. Director Moody and CEO Fernandez provided comments in support of the resolution.

Chair Core then asked for public comment. There were none.

Chair Core asked for comments from the Board. There were no additional comments.

Thereafter, the vote was recorded as follows: Bogner – Yes; Cavanaugh – Yes; Core – Yes; Howard – Yes; Hudson – Yes; Moody – Yes; Spurgeon – Yes; Williams – Yes. The motion carried (8-0).

Board Discussion Action Item

13. Vice President, Human Capital - Appointment and Compensation Approval – Resolution No. 6762

Director Cavanaugh moved to approve the discussion action item, and it was seconded by Director Bogner. Chair Core asked for CEO and Board member questions or comments. CEO Fernandez, Director Hudson and Director Spurgeon made comments in support of Ms. Wheeler.

Chair Core then asked for public comment. There was one.

David Begley, 4611 S. 96th St, provided comments on the resolution.

Chair Core asked for comments from the Board. There were no additional comments.

Thereafter, the vote was recorded as follows: Bogner – Yes; Cavanaugh – Yes; Core – Yes; Howard – Yes; Hudson – Yes; Moody – Yes; Spurgeon – Yes; Williams – Yes. The motion carried (8-0).

Chair Core invited Ms. Wheeler to provide comments on her appointment as Vice President, Human Capital. Ms. Wheeler provided comments of gratitude and appreciation to the Board and Executive Leadership Team.

Board Agenda Item 14: President's Report

CEO Fernandez next presented the following information:

- March 2026 Baseload Generation
- March 2026 Balancing Generation
- March 2026 Renewables
- DIY Energy Assessment – Pilot Update
- Reliability Investments
- Challenging Future Engineers

- In Memoriam – Brian Keenan and Michael Leary

Board Agenda Item 15: Opportunity for comment on other items of District Business

Chair Core asked for comments from the public in the room. There was one comment.

David Begley, 4611 S. 96th St, provided comments on solar panel efficiency

There were no additional comments from the public in person or online.

There being no further business, the meeting adjourned at 5:42 p.m.

DocuSigned by:
Cliff Fleener
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C. V. Fleener
Vice President – Sustainability and Environmental Affairs

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Erin H. Lane
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E. H. Lane
Sr. Board Operations Specialist

The Myth of Cheap Wind and Solar

Wind and solar advocates often cite a metric called the Levelized Cost of Energy (LCOE) to claim that these energy sources are cheaper than coal, natural gas, and nuclear power plants.[1]

However, these claims, which are already tenuous due to rising wind and solar costs, ignore virtually all of the hidden real-world costs associated with building and operating wind turbines and solar panels while also keeping the grid reliable, including:

- Additional transmission expenses to connect wind and solar to the grid;
- Additional costs associated with Green Plating the grid;
- Additional property taxes because there is more property to tax;
- "Load balancing costs," which include the cost of backup generators and batteries;
- Overbuilding and curtailment costs incurred when wind and solar are overbuilt to meet demand during periods of low wind and solar generation and are turned off during periods of higher output to avoid overloading the grid;
- These comparisons also ignore the cost differential between low-cost, existing power plants and new power plants.

Add all of these factors together, and you have a recipe for soaring electricity prices due to the addition of new wind, solar, and battery storage on the electric grid.

Source: Energy Bad Boys, Substack, March 30, 2024.

Prepared and submitted by David D. Begley, customer-owner

Vern Carlson, 800 Buckboard Blvd, Papillion, NE.

Regarding David D. Begley's comments that solar is not efficient, "**seems kind of retarded to me**…."

I was referencing TJ Rodgers and his knowledge that the maximum solar efficiency for a solar panel is 29%.

Who is TJ Rodgers?

- PhD in electrical engineering at Stanford.
- Former CEO of Cypress Semiconductor.
- Current CEO of SunPower.

Who is Vern Carlson?

- College educated at some unknown university; degree unknown.
- RF Engineer; probably UPRR.

Who is more credible?

The **Shockley-Queisser (SQ) limit** represents the theoretical maximum power conversion efficiency for a **single-junction solar cell** under standard conditions (typically the AM1.5G solar spectrum at ~1000 W/m² and cell temperature around 25–27°C/298 K). It derives from fundamental thermodynamic and quantum mechanical considerations, accounting for:

- **Spectrum losses** — Photons with energy below the semiconductor bandgap pass through unabsorbed; photons with energy well above the bandgap lose excess energy as heat (thermalization).
- **Radiative recombination** — The unavoidable emission of photons when electrons and holes recombine.
- **Other ideal assumptions** — No non-radiative losses, perfect absorption above bandgap, etc.

The original 1961 calculation by William Shockley and Hans Queisser (using a simplified blackbody approximation for sunlight) yielded ~30% at ~1.1 eV bandgap. Modern refinements using the actual terrestrial solar spectrum (AM1.5G) give slightly different values depending on exact assumptions:

- For the **optimal bandgap** (~1.34 eV): ~33.7%.

- For **silicon** (bandgap ~1.12 eV): Commonly cited as ~32–33.7%, with some detailed calculations (including recent revisions considering emission of both luminescence and thermal radiation) reaching ~33.4%.

Older or simplified references sometimes quote ~29–30% for silicon under certain models (e.g., the 29.3–29.4% figure T.J. Rodgers mentioned in interviews). The exact number varies slightly with spectrum details, temperature, and whether Auger recombination or other effects are folded in, but the core point remains: single-junction silicon cells face a hard physical ceiling in the low-to-mid 30% range. Real-world commercial cells today top out around 24–27% due to practical losses (reflection, shading from contacts, non-radiative recombination, resistance, etc.).

Lazard's Low-End LCOE Estimates for Solar Are Still Too Optimistic

Even in the Southwest, solar is more expensive than existing coal, natural gas, and nucle power plants

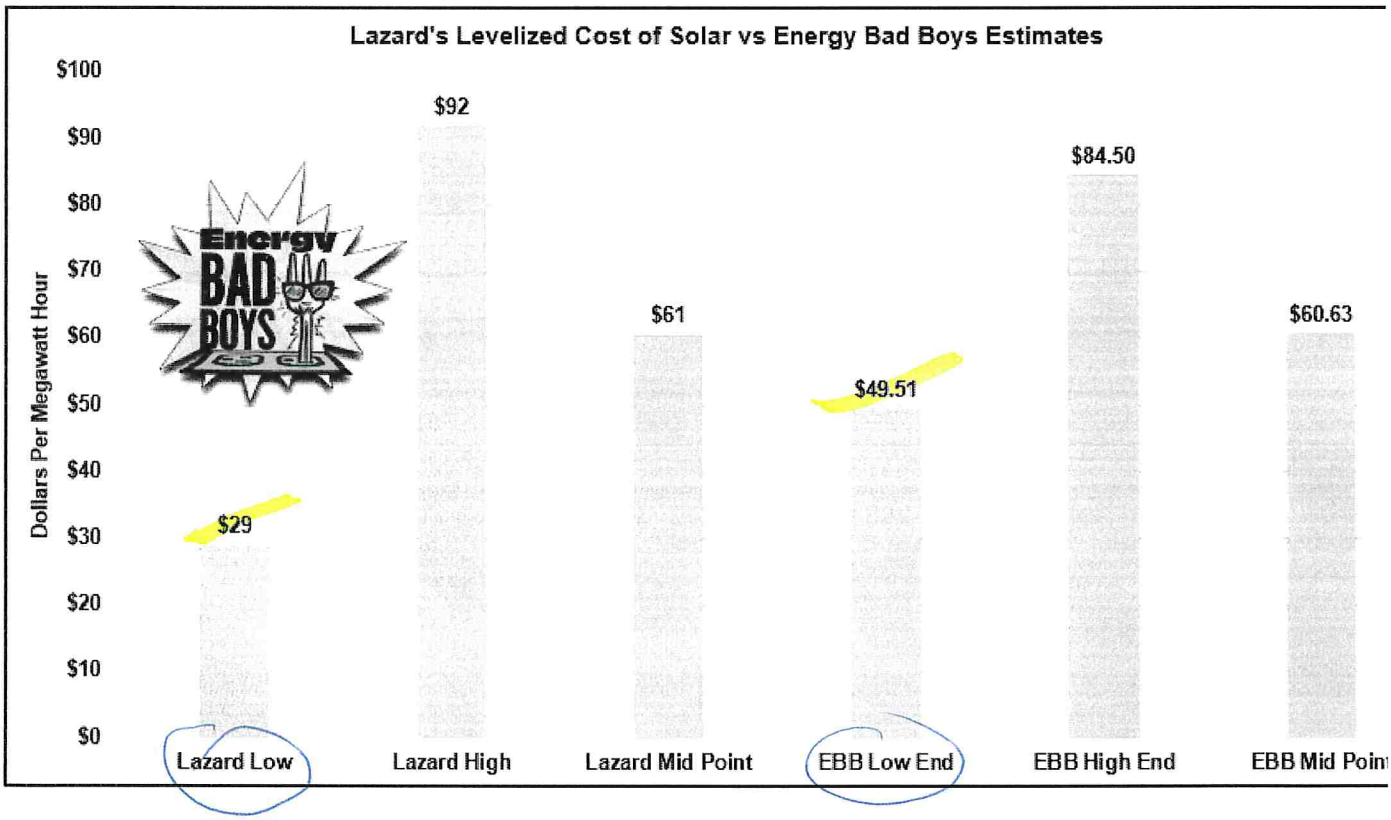
ENERGY BAD BOYS AND MITCH ROLLING

JUN 15, 2024

One of the biggest values we seek to provide our readers at *Energy Bad Boys* is callin balls and strikes in the energy space.

wind. However, Lazard's low-end estimate - the one most frequently used by wind a solar advocates to claim solar is lower cost than thermal resources - is still far too generous.

Our analysis shows that the true low-end LCOE estimate for solar is 70 percent hig than what Lazard suggests, and this higher low-end cost for solar means solar is sti more expensive than existing thermal resources, even in the American Southwest a without accounting for the system costs not included in LCOE estimates.

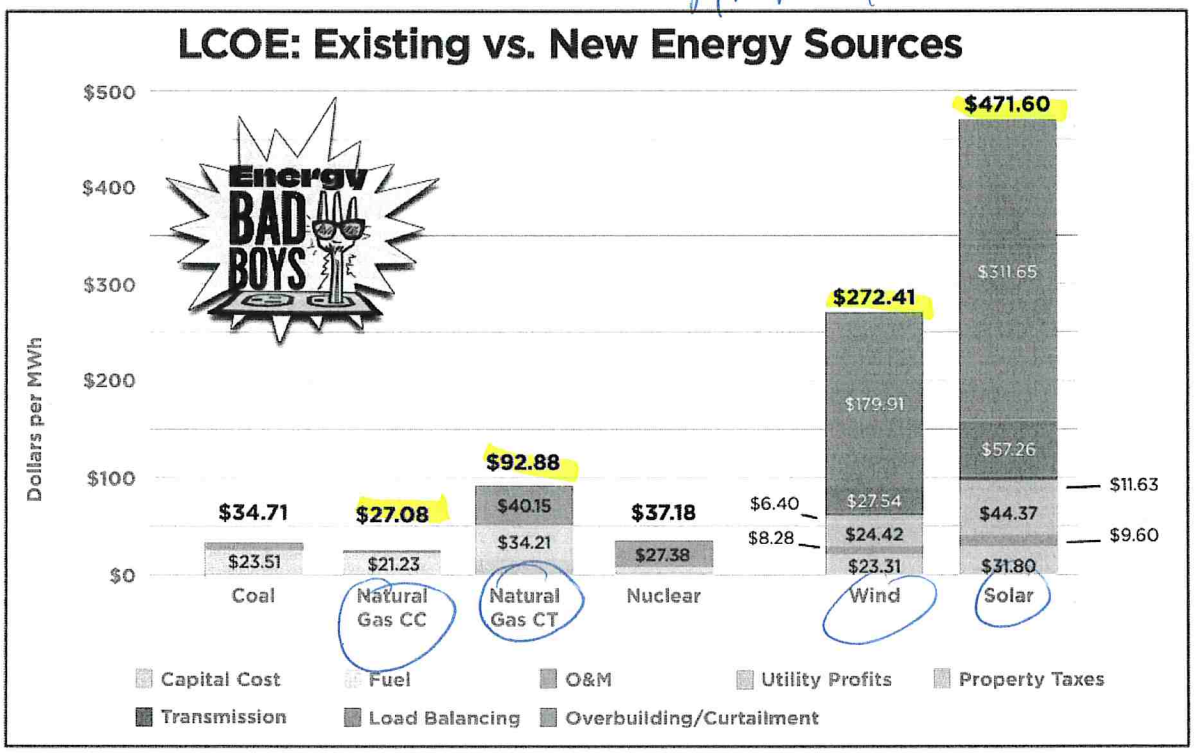


First, Some Housekeeping

1. **The All-In LCOE**: Last week, our readers provided extensive feedback, correct pointing out that we cannot examine the cost of wind and solar in a vacuum - which is what typical LCOE values estimate - and that to understand the full c of incorporating intermittent resources onto the grid, we need to evaluate the entire system. We agree. In fact, we've pretty much pioneered calculating the "A In LCOE" over the last several years and have written extensively on the topic.

you want our take on that, please read *How to Destroy the Myth of Cheap Wind ar Solar*. Our analysis of Lazard LCOE estimates in these posts centers on assessir whether their assumptions even make sense.

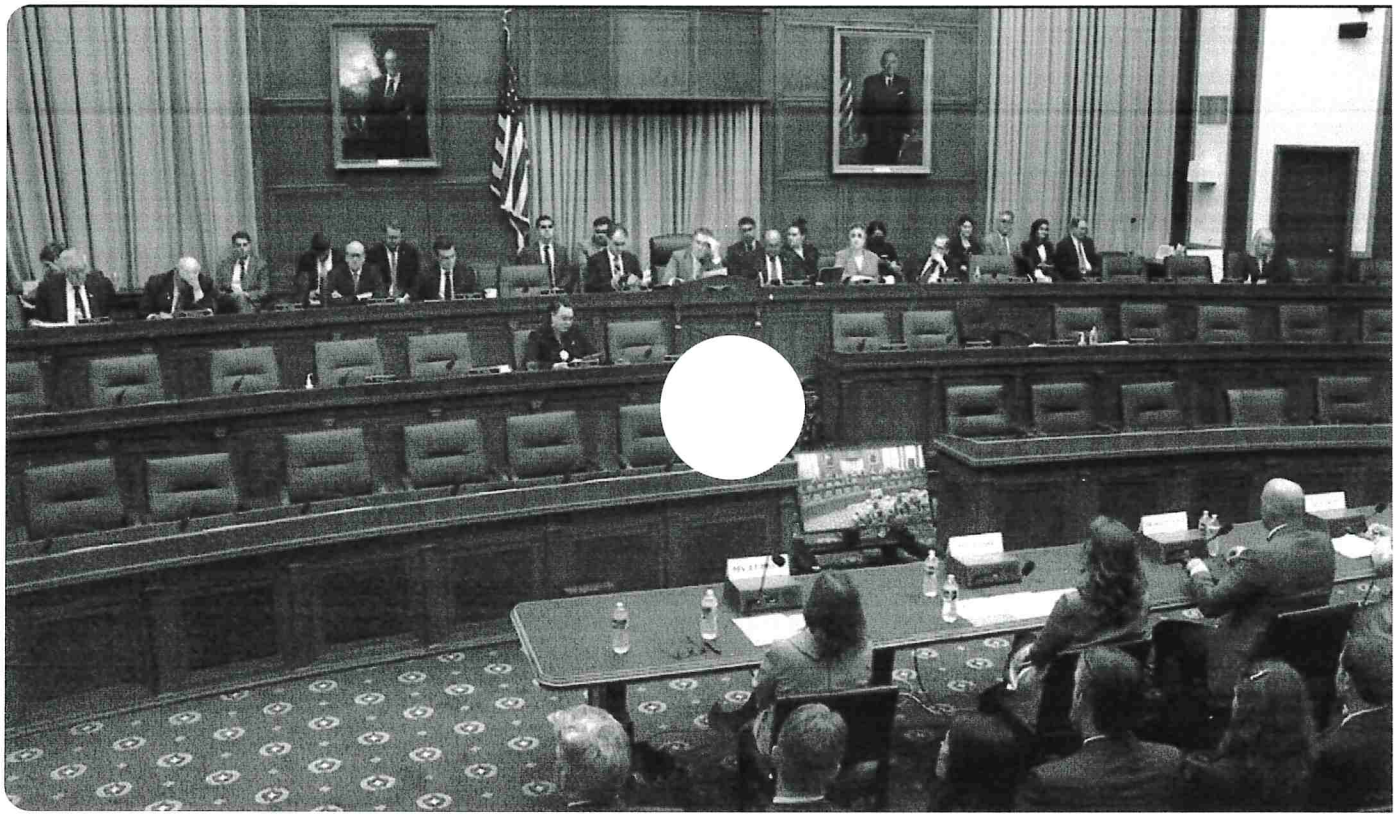
ALL-IN



2. **What is the LCOE, and How is it Calculated?** For a primer on what the LCOE and how it's calculated, read last week's piece: Cooking the Books 2: Lazard's Levelized Cost of Energy Estimates for Wind.

Energy Bad Boys in the Congressional Record

Before we dive into Lazard's solar estimates, we wanted to share that the Energy Bad Boys were recently entered into the Congressional record. Many thanks to Representative Harrie Hageman (R-WY) for entering Hawaii Five Uh-Oh into the record.



Calculating the Cost of Solar

As we discussed last week, the LCOE of an energy source is primarily influenced by the assumed capital cost of the plant, the capacity factor, and the number of years a plant is in service.

The table below shows Lazard's assumptions for these inputs and compares them t what we believe are more realistic ones. Overall, we think Lazard's low-end assumptions are far too optimistic, their high-end estimates may be too pessimistic and their midpoint is about right, even though we arrive at similar estimates using different assumptions.

Lazard's Levelized Cost of Solar vs Energy Bad Boys						
Variable	Lazard Low	Lazard High	Lazard Mid Point	EBB Low End	EBB High End	EBB Mid F
Capital Costs ($/kW)	$850	$1,400	$1,125	$1,250	$1,448	$1,250
Capacity Factors (%)	30	15	22.5	30	20	24.5
Useful Life (Years)	35	35	35	25	25	25
LCOE ($/MWh)	$29	$92	$61	$49.51	$84.50	$60.63

Capital Costs

Lazard uses a capital cost range of $850 per kilowatt (kW) of installed capacity to $1,400/kW. The Electricity Market Module produced by the U.S. Energy Informatio Administration (EIA) uses a range of $1,393 to $1,758 per kW, with a capacity weigh average of $1,448/kW. Our most recent conversations with people in the utility industry have ballparked the cost at around $1,250/kW.

We used $1,250 for our low and mid-point estimates and EIA's capacity-weighted average for our high-end estimate, which is rather conservative given the higher estimates in different regions around the country.

Useful Life

Useful life is the biggest point of disagreement between what we see and what Laza is projecting.

Lazard expects solar facilities to operate for 35 years, but the Solar Energy Industri Association (SEIA) states the lifespan of a solar photovoltaic panel is approximately 20-30 years, while the lifetime of an inverter can be upwards of 10 years.

Interestingly, Lazard assumes a longer lifespan for solar plants than natural gas facilities, which Lazard assumes a lifespan of 20 years.

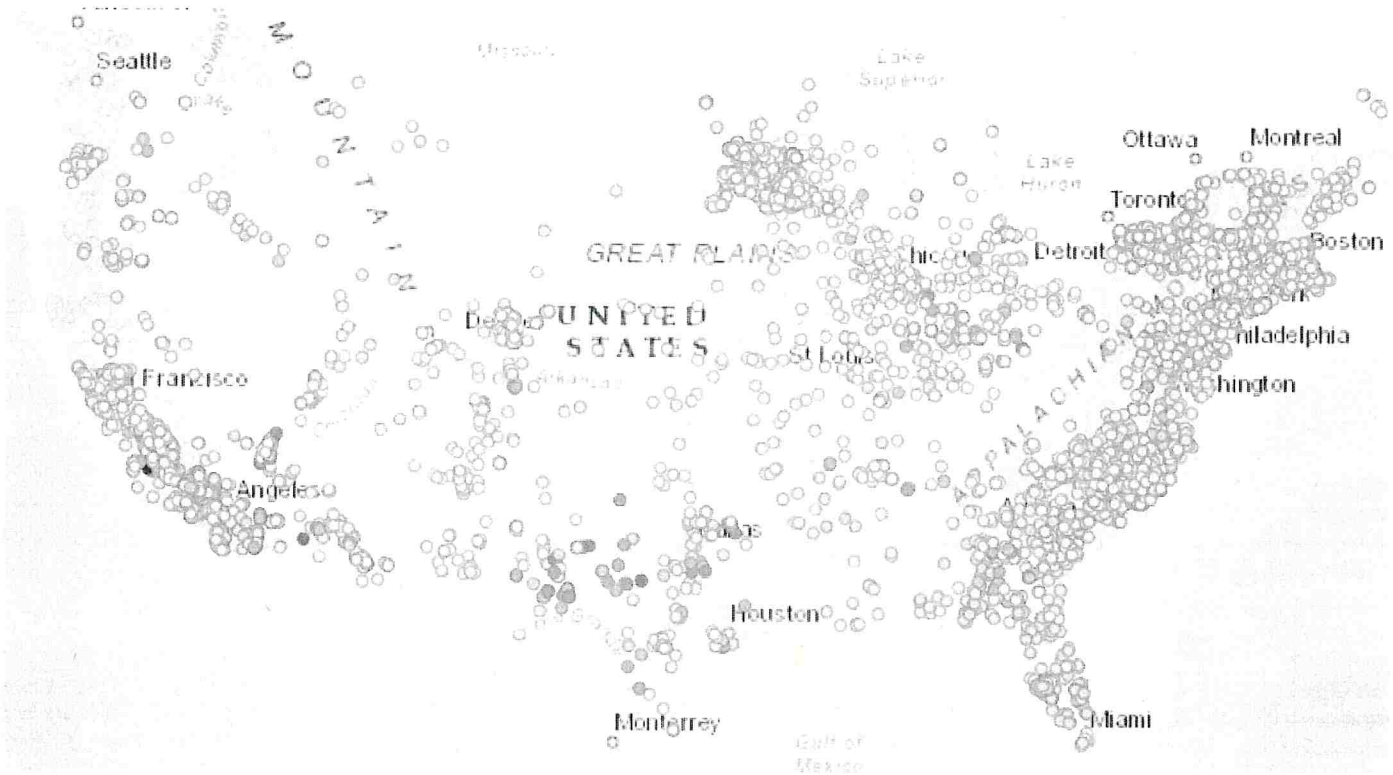
We used 25 years as a solid mid-point estimate. In the future, it will be interesting t see if this remains realistic and if solar facilities start being "repowered" after 10 ye like wind turbines, as utility resource planners begin to assume that solar facilities elect the Production Tax Credit instead of the Investment Tax Credit.

Capacity Factors

It is trickier to arrive at a single cost estimate for solar because, unlike wind turbin which are generally built in the central portion of the country where wind speeds a

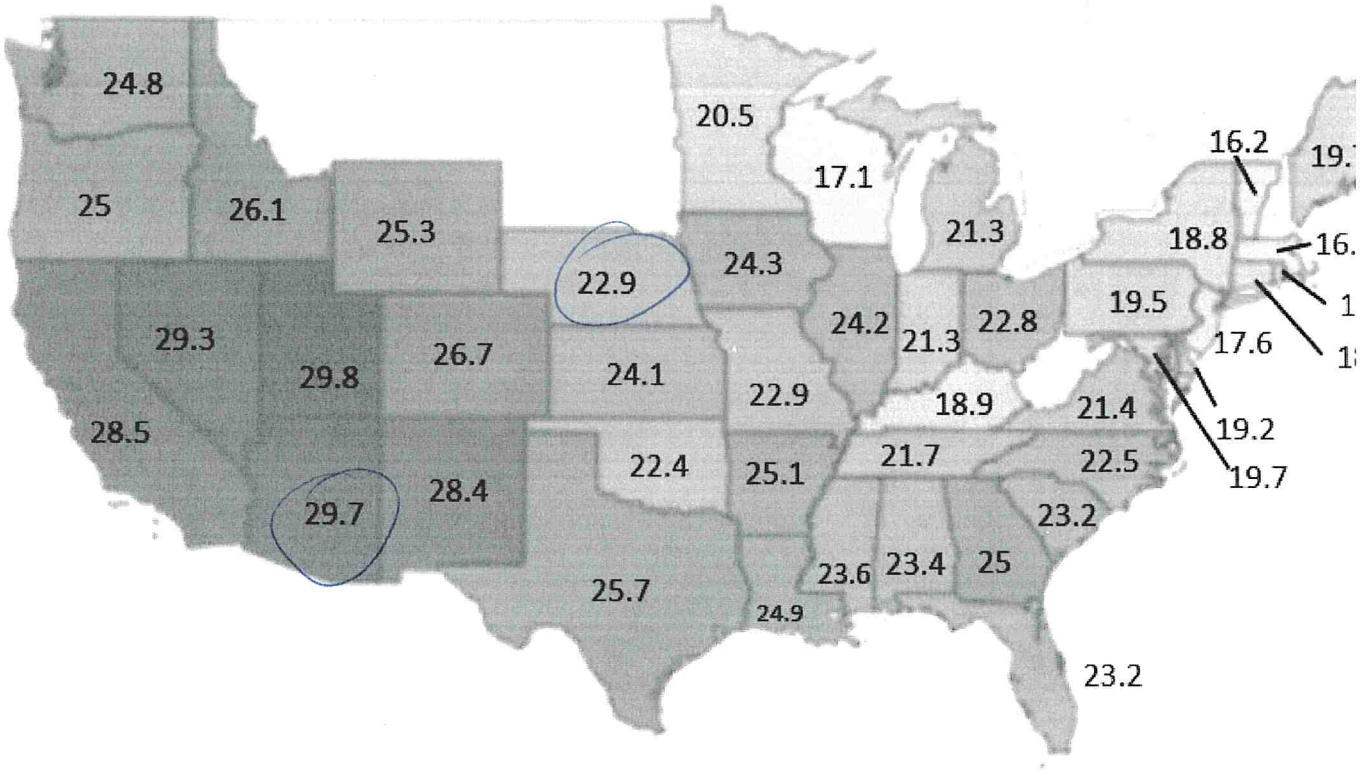
highest, solar panels are installed all over the country.

The map below from the U.S. Energy Information Administration shows solar facilities in a pinkish color, with larger facilities shown in a purple hue.



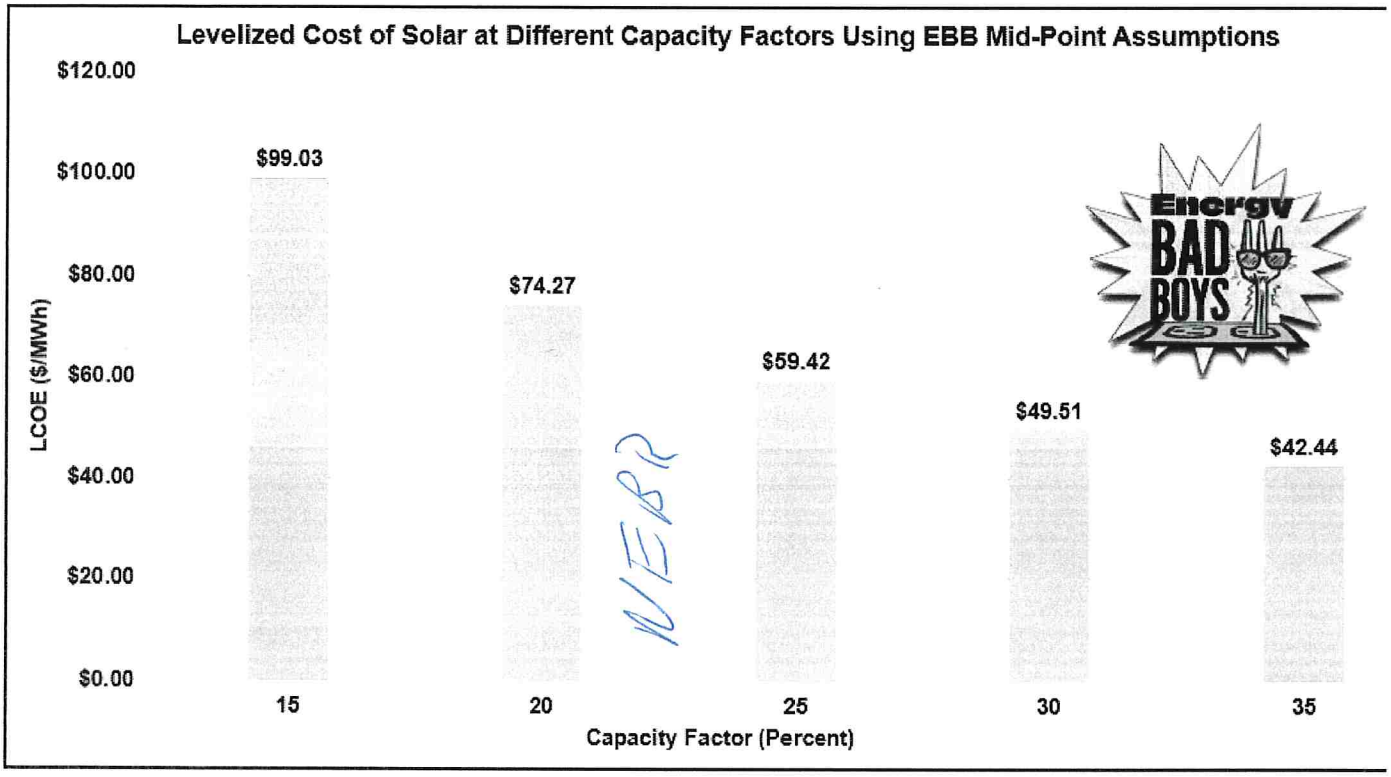
This wider geographic dispersion leads to a more significant range of costs based o the solar resources of the area in question.

The map below uses data from Lawrence Berkeley National Labs (LBNL) to show state-wide solar capacity factors by state. Several individual projects in the Southw exceed 30 percent, while some (but few) reach Lazard's high-end assumption of 35 percent. Additionally, no state had a state-wide capacity factor as low as Lazard's lo end assessment of 15 percent.



For our assumptions, we used 30 percent as a high-end value, 24.5 percent as a mid-point value because it is the U.S. average capacity factor, and 20 percent to represer the low-end range.

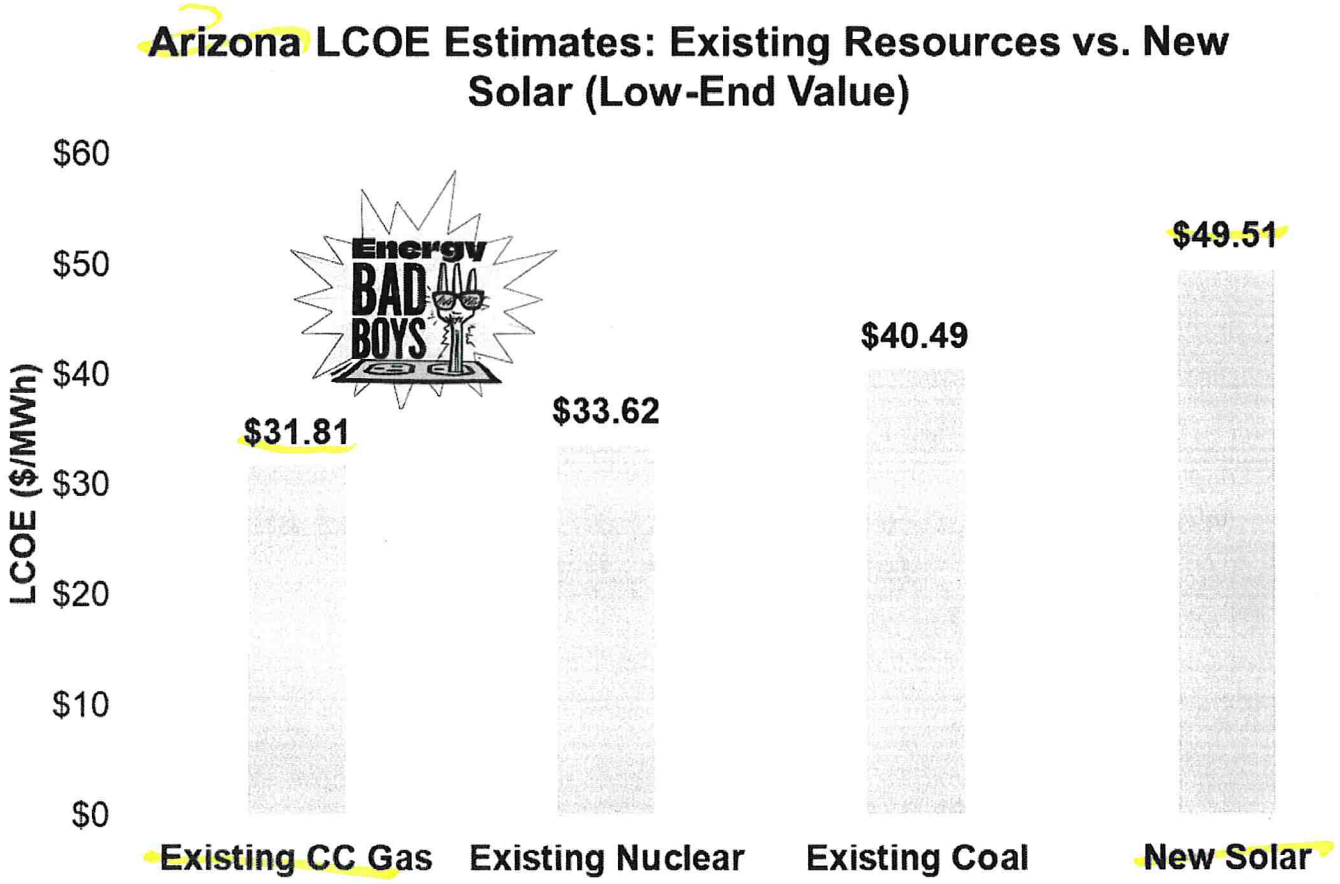
Because solar capacity factors are low—below 30 percent— even a few percentage points can make a big difference to the LCOE. The graph below shows the LCOE o solar using our mid-point assumptions but with a range of capacity factors.



Implications

Lazard's underestimation of the low-end cost of solar has important implications fc resource planning.

For example, Arizona and Utah have good solar resources relative to the rest of the country, but a low-end cost estimate of $49.51 per MWh for solar means the unsubsidized cost of these resources is still higher than the cost per MWh for existi power plants on the system, as you can see from the graph below.



Unfortunately, based on overly generous assumptions for the cost of solar in the US Lazard estimates are used around the country in resource planning procedures to advocate for the closure of thermal generators and their replacement with solar par and to convince legislators that the so-called energy transition will be economical, which is not true.

When you combine the impact of NREL cost projections and Lazard LCOE estimat the case for the energy transition is being settled based on highly optimistic and, in some cases, unrealistic assumptions for the cost of wind and solar. These estimates better applied to understand the wishful thinking of wind and solar advocates than grasp the realistic cost expectations for the energy transition.

Conclusion

While not as bad as its wind estimates, Lazard's solar costs still mislead people into thinking solar energy is less expensive than it is. We find it important to conduct analyses like this because we believe the industry as a whole, but especially those w regulate and legislate energy policy, need to be more critical of reports like Lazard's before accepting it at face value to implement energy policy.

Moving forward, any discussion of the cost of the energy transition to wind and sol needs to be more robust than depending on reports like Lazard's, which notes specifically that it "does not consider the intermittent nature of selected renewable energy technologies or the related grid impacts of incremental renewable energy deployment," which is the most important thing to consider in the conversation.

Low CARB Diet by Doomberg

Climate Science is About to Make a Huge Mistake by Roger Pielke Jr.