CONSOLIDATED OREGON INDIVISIBLE NETWORK

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To: Senate Committee on Energy and Natural Resources
From: Consolidated Oregon Indivisible Network (COIN)
Re: SB 1582
Date: February 11, 2026

Chair Sollman, Vice-Chair Brock Smith, Vice-Chair and Members of the _____ Committee:

The Consolidated Oregon Indivisible Network (COIN) supports SB 1582 and we strongly urge you to pass this important legislation this year.

My name is Jeff Hammarlund. I am testifying today I Support of SB 1582 with the -2 amendment on behalf of the Consolidated Oregon Indivisible Network (COIN). COIN is a coalition of over 75 local Indivisible groups, representing every region in our state. I am a member of COIN's Climate, Energy and Environment Team. I am also a retired utility executive and professor of energy and climate policy.

Prior to my retirement as a university professor, I had the honor of co-teaching an exciting course for graduate students and mid-career professionals called the Designing the Smart Grid for Sustainable Communities. This course was launched in 2009, and I am proud to say that nearly a thousand people working in this cutting-edge field are course alums. I have also been a member of workshop teams that helped prepare folks from Portland General Electric, the Energy Trust of Oregon, the Northwest Energy Efficiency Alliance, Oregon Department of Energy, and BPA, but also facilities managers of large box stores, shopping malls, school districts considering converting their school bus fleets to electric with storage batteries, and others. One of the central features of our training was the exciting role that virtual power plants could play. However, we had no choice but to prepare these folks for the time that virtual power plants were truly ready to go. **I am excited to say that this time has finally arrived.**

Most recently, I was a member of the Oregon Energy Strategy Advisory Group. As you know, Oregon has set goals to reach 100% clean energy. The Oregon Department of Energy Oregon Energy Strategy provides a roadmap for meeting these goals. Governor Kotek followed up with an executive order to ensure state agencies make its implementation a top priority. Both the Strategy and the Governor's directive make it clear that moving to clean energy is the most cost-effective and resilient path forward for Oregon households and businesses alike.

As the good folks at Climate Solutions noted in their recent blog, one of the Energy Strategy's central findings is that Oregon's primary challenge is not lack of energy, but how and when that energy is delivered. Building and upgrading transmission is essential, but planning, permitting, and construction can take many years. The very encouraging study released this week by than 70 organizations from across the energy industry in the Mountain and Pacific coast states called WestTEC proposed an important piece of the solution. However, its projected cost is $80 billion and the timeline involves decades.

In the meantime, Oregon needs near-term solutions to manage power and to ensure that new transmission infrastructure is used as efficiently as possible. This will enhance grid stability and reduce long-term costs for customers.

What Has Changed?

A decade ago, Distributed Energy Resources and the Virtual Power Plant (VPP) "netting" that link them together were widely considered "hot". The hype was that resources like rooftop solar with battery storage, smart thermostats and other devices, electric water heaters, and other distributed energy technologies could be collectively to balance energy supply and demand in ways that would offset the need for expanding traditional grid infrastructure. Some even claimed that the days of traditional electric utilities were numbered. There was even talk about utility death spirals.

However, DERs and the VPPs that connect them did not take off, at least not in the ways that some energy futurists anticipated. They had high price tags and short track records compared to the existing substations, transmission lines, and generation options that utilities were familiar with. In short, the market didn't need them yet.

Fast forward ten years and we are in a very different place. Load growth is increasing rapidly due the rapid expansion of energy-intensive data centers combined with increasing electrification of homes, buildings and vehicles, and the industry is facing major grid bottlenecks. Obvious examples include **transmission** (we need much more transmission capacity and a better process for connecting projects to population centers), **interconnections** (here, some data centers are getting ahead of the game by co-locating data centers with massive arrays of storage batteries, essentially their own VPPs), and **supply chain problems** (for example, the time it takes to get the large transformers that raise and lower voltage has jumped from 6 months to over 2 years).

Most important the technology and knowhow to create cost-effective and viable VPPs are now ready to go. The software required to coordinate millions of distributed assets (like smart thermostats and EV chargers) has finally caught up. Modern AI-driven platforms now allow utilities to predict load flexibility and battery output with enough reliability to treat VPPs as core infrastructure. Historically, DERs were often seen as "nice-to-have"

experiments to be taken seriously at some point in the future. Now, they are increasingly viewed by the states that are leading this effort as **essential infrastructure** capable of providing reliable capacity that grid operators can count on to meet a historic surge in load growth. Despite the shockingly uninformed testimony of at least one opponent of this bill at the recent hearing, many of these devices are extremely dispatchable in matter of moments, not hours. It is true that energy efficiency measures and rooftop or balcony solar are not dispatchable alone, although they are still vitally important. However, the two other types of distributed energy resources can be turned on and off with a virtual slip of the switch. The first is flexible loads, basically some piece of equipment on a customer premise that is capable of being turned on or off and ramped up and down quickly in response to some kind of signal from the utility or grid operator. A great example is electric water heaters. I want to know that we will have hot water available when the teenagers come home and want to take a shower. However, modern water heaters can hold their heat for days. They don't necessarily need to be turned on when the utility is facing demand peaks. They can be turned on during periods of low demand for electricity. These sorts of programs are usually referred to as demand response programs. The second type of dispatchable distributed energy resource involves storage, typically battery storage that collects electricity from solar arrays or from electric vehicles and sends in back to the grid when needed.

There are still significant barriers the need to be addressed, and this is what this bill, along with its amendment are about.

Four "Drivers" Supporting Virtual Power Plants

I see four major drivers that should unsure that Virtual Power Plants will become a major component of Oregon's and the nation's energy solution tool kit.

- **Rapidly Rising Demand:** U.S. electricity demand is projected to grow significantly by 2030, largely due to AI data center buildouts and manufacturing. VPPs can be deployed in roughly 12 months, whereas traditional power plants or transmission lines can take 5 to 10 years to clear backlogs.
- **Technological Maturity:** The software required to coordinate millions of distributed assets (like smart thermostats and EV chargers) has finally caught up. Modern AI-driven platforms now allow utilities to predict load flexibility and battery output with enough reliability to treat VPPs as core infrastructure.
- **Proven Resilience:** VPPs have already successfully "rescued" grids during extreme weather, such as Winter Storm Elliott and record-breaking heat domes in the summer of 2025.

- **Economic Advantage:** The Department of Energy (DOE) during the Bidwen Administration noted that tripling VPP capacity could save over $10 billion in annual grid costs by 2030 by avoiding the need for expensive natural gas-fired "peaker" plants.

Examples of Success

During this past year's peak demand periods, VPPs demonstrated repeatedly that they can provide reliable power at scale to utilities and system operators when called upon. These demonstration projects kept the lights on and air conditioners humming across the country, from large-scale projects in California and Texas to smaller but still-effective developments in New England, Puerto Rico, and elsewhere. I want to emphasize that these projects were no located not just in "blue" states like California or the states in New England. In fact, the state that has been moving most aggressively in 2025 and so far in 2026 is Texas. Three companies - NRG Energy, Base Power and Sonnen – are the Texas firms I am hearing the most about in this fast-growing and highly competitive market.

- Early in 2025, NRG launched its VPP program in its home state of Texas, with the long-term goal of aggregating 1 gigawatt (GW) of dispatchable residential capacity by 2035. Initially, its 2025 goal was set at just 20 MW, but the company bumped that up to 150 MW in the second quarter due to stronger than expected demand.

- Base Power, a well-funded startup, also is optimistic about Texas' VPP market potential. Zach Dell, son of Dell Technologies founder Michael Dell, launched the company two years ago and recently raised $1 billion to fund its expansion plans. Dell describes Base Power as a "gentailer", with its generation supplied by residential batteries. It offers batteries of 25 kilowatt-hours (kWh) or a two-pack of 50 kWh (both large by residential standards, but dwarfed by the size of utility-scale batteries) to potential customers for a monthly fee, sells them their electricity and promises them backup power if the grid goes down. In return, Base Power owns and operates the batteries as it sees fit in the Texas market. The last report I have seen from them was in early November. They had already deployed more than 100 megawatt-hours (MWh) of battery storage capacity in the Texas market to date and they seem to have big plans. Dell told the Catalyst podcast this month that the company was installing 20 MW of battery storage capacity a month now, and expected to increase that to 100 MW monthly by mid-2026.

- Sonnen, the largest VPP operator in Europe, has been steadily expanding in the U.S., led by a growing program in Utah that now incorporates roughly 6,000 homes. Its CEO, Blake Richetta, also sees significant growth potential in the Texas market. In an interview in Mayhe said the company would launch its Texas VPP with

60 MWh of battery capacity, and that the company expected to expand that to 150 MWh by the end of the year.

Please vote YES on _____ to ____

Respectfully,

<Your Name, Your City>
On behalf of the Consolidated Oregon Indivisible Network (COIN)