

Climate Action, Sustainability, and Energy Committee Meeting Minutes
January 22nd, 2024, 2:00pm

Zoom: <https://virginiatech.zoom.us/j/87025123814>

Present: Nathan King for Mary-Ann Ibeziako, Jon Clark Teglas for Bob Broyden, Ken Miller, Emily Williams, Lam Vuong for Liza Morris, Matt Stolte, Nam Nguyen, Autumn Timpano, Todd Schenk, Zhuo Fu, Wesley Gwaltney, Erin Poff, Pat Donovan, Diane Bonsall, Luke Goodman, Leslie Stevens, Izzy Lergen, Cameron Hadley, Mae Hey, Gia Ha, Ian Dunbar for Kendra Paisley

Absent: Teresa Sweeney, Carrie Cox, Jamie King (notified office ahead of time), Joshua Clemons, Annie Hassall Lawrence, Dean Paul Winistorfor, Benjamin Thomas, Thomas Dalzell, Claudia Budzyn, Katie Smith

Guests: Kristina Cook, Jack Leff, Chuck Dietz, Emily Vollmer, Ron Meyers, Victor Zimbardi, Mark Witt, Brenda van Gelder, Charul Agrawal, Steve Durfee, Andrew Gould, Rob Lowe, Barbara Wise, Gillian Eastwood, Sheree Andrews, Adia Long, Sean McGinnis, Yugasha Bakshi, Ralph Hall, Paul Ely, Carol Davis, Simona Fried, Nick Quint, Ann Raridon, S.B. Chandler, Anthony Watson, Jamie Lau

Nathan King called the meeting to order at 2:00 pm. A quorum was present.

1. Adoption of Agenda

A motion was made and seconded to adopt the agenda. The motion carried.

2. Membership Updates

Chris Kiwus has moved on to Wake Forest University and so we welcome Bob Broyden (as interim VP of Campus Planning, Infrastructure, and Facilities) as an interim ex-officio member.

3. Presentation

Nathan King (Campus Sustainability Manager) and Nam Nguyen (Executive Director of Energy and Utilities) gave presentations that covered all agenda items for the committee meeting (attached).

4. Open Discussion and Announcements

- Announcements
 - Campus Race to Zero Waste has begun and lasts for 8 weeks
 - Our March 25th CASEC meeting will be hybrid at Fralin Hall Auditorium
 - New Microsoft Team for Subcommittee Conveners
 - Sustainability Literacy and Culture Assessment
 - Freezer Challenge
- Green RFP Update
 - Carol Davis: The Town of Blacksburg is going after separate funding for Heritage Park in part because they have been so impressed with the work that the Stroubles Creek Coalition and Stream Lab have been able to do over the years. The Town of Blacksburg has met with those involved with Stream Lab and Tom Saxton and they've provided fantastic guidance on how to proceed. She wants to applaud VT because it has inspired the town to pursue similar action.
- Energy and Utilities
 - Nam: This presentation is about process that we are about to embark on to examine how we will manage the purchased Energy for the expiring AEP contract in 2027. Currently, our wholesale purchase power that we get from AEP that VTES manages and distributes to campus and the Town of Blacksburg is fueled by/generated by fossil fuel. So, this is an initial investigation into what it would take to incorporate renewable energy into our purchase

- power portfolio. We are at the very beginning stages, nothing has been committed, and no decisions have been made. We have not even socialized this with leadership. So, there are still many steps that we'll need to go through. So, I just wanted the Committee to take this as a concept that we are analyzing at the moment. Obviously, we have to work with executives and finance partners and most definitely the Town of Blacksburg as well.
- Sean McGinnis: It's interesting that the consultants projected a decrease in REC value but considered the overall price of wind to stay the same. Is there an expectation that the price of wind and solar are not going to come down as technology and implementation get better?
 - Nam Nguyen: we would enter into a PPA (Power Purchase Agreement). You can go into it with a lower entry point or pay a higher fixed price. Prices are higher coming out of COVID due to a shortage of supplies, materials, and labor.
 - Paul Ely: If you bought RECS for one installation over time. The panels get derated while we're seeing inflation at the same time which would equate to higher cost per kilowatt over time.
 - Nam: Yes, it's usually a half percent derating of production and it's typically accounted for.
 - Steve Durfee: Something to note is that even if prices for solar and like are less in the future, financial backers are giving up X amount of money today. It's front-loaded with their investment. There's a model there that dictates what they need to receive back from us per kilowatt hour in the long term to recoup their expense from the investment.
 - Nam: Connection costs to the utilities and the ability to transport the energy is going to be more costly.
 - Jack Leff: A question from Ron Meyers in the chat "I am very curious as to the economics of owning our own PV and wind. The life-time cost of solar PV is currently about 4.5 cents/kWh. Did we call for exploring this in the Climate Action Plan? There was a sense of social equity to doing it that way.
 - Jack: A question from Gia Ha in the chat "What are some of the items on the agenda for the next meeting? I'm hoping that we can talk about the CAC revisions soon."
 - Jack: A question from Gill Eastwood in the chat "Please can you say more about the Campus Race to Zero Waste? And also if VT is participating in GAMEDAY ZERO WASTE this year?
 - Nathan King replied in chat: "Yes, we can put you in contact with Teresa Sweeney, our Campus Waste Manager, who is leading the effort. I believe we are signed up for the "Per Capita Diversion" category right now."
 - Gill replied in chat: "Thanks!" Does that include labs?
 - Jack: A question from Ralph Hall in the chat "Nam - do you have any plans to explore the potential of installing solar/wind on VT-owned land and what this would mean with regards to energy production, costs, and risk? We have (I believe) hundreds of acres of land that could be used for solar/wind, which may present an opportunity supply the majority of power needs in Blacksburg."
 - Nathan King called for a motion to adjourn
 - Todd Shenk: I object to adjournment. What is the plan for how our questions will be answered?
 - Kristina asked if all interested parties were able to stay on to have questions answered. Nam had a 3:00 meeting that he could not miss.
 - Questions will be sent to Nam ahead of time so that he can review them and then provide answers during a window at the next meeting.
 - A presentation from Jamie King, University Arborist, and Green RFP voting was already scheduled for the February meeting. To accommodate the additions of Q&A for Nam and a brief update on upcoming 2025 CAC Revisions, Kristina will reach out to Jamie to ask if his presentation can be shortened.

6. Adjournment

There being no further business, the meeting adjourned at 3:05 pm.



Climate Action, Sustainability, and Energy Committee

January 22, 2024 – 2:00 PM





Please Use Poll Everywhere to Sign in for Attendance!
(detailed instructions are in the chat box and were also sent out via email)
All attendees- members, proxies, and guests- should sign in

Participating on Your Phone or Tablet

Using a QR to Participate on Poll Everywhere

1. Open camera app on your phone
2. Place QR code in frame but DO NOT take a photo
3. Focus shot until yellow pollev.com indicator appears



4. Tap QR code on screen to open Poll Everywhere

Pollev.com/kristinacook711

To participate on your computer:

1. Open web browser and enter web address provided to go to Poll Everywhere
2. Enter your VT email in the text box and select “next”
3. Select “Log in with Virginia Tech University Governance”
4. Sign in with VT SSO and complete two-factor authentication
5. Select “Join Presentation”

Agenda

- Welcome, Opening Remarks, and Membership Updates
- Approval of Proposed Agenda (Poll Everywhere)
- Meeting minutes: Electronic Vote Results
- New Business
 - Green RFP Update
 - Energy and Utilities Presentation
- Announcements and Open Discussion

Previous Year Green RFP Update

- Of the 10 proposals approved:
- 2 proposals are complete
- 5 proposals are in progress
- 3 proposals not started



2023-2024 Green RFP – Key Points and CASEC’s Role

- Formal university program for **student organizations** to submit sustainability initiatives or ideas.
- Program was launched in **academic year 2010-11**
- The uniqueness – proposals are submitted, reviewed, **select proposals prioritized**, approved proposals funded, & implementation initiated in the **same academic year**.
- **To date: 133 proposals have been approved, totaling \$2.08 million**
- CASEC to review & prioritize the select proposals listed in the Green RFP Summary Table.



2023-2024 Green RFP Process and Timeline

<u>DATE</u>	<u>ACTIVITY</u>
Nov 11	Green RFP 2022-23 announcement
Dec 11	Proposal deadline to CASE office
Dec 15	CASE office coordinates review with subject matter experts
Jan 22	CASEC Subcommittee to begin review & prioritize proposals
Feb 26	Subcommittee presents recommendations to <u>CASEC for approval</u>
Mar 11	CASEC presents proposals to the Office of Budget & Financial Planning
Mar/Apr	OBFP convenes Budget Review Committee- identifies funding sources
May/June	Select proposals approved - implementation initiated in summer

Green RFP Subcommittee

- **Evaluation criteria:**

1. Does the proposal support the goals of the climate action commitment
2. Does the proposal generate savings
3. Does the proposal pertain to energy reduction/conservation or enhance social/ecosystem services
4. Does the proposal address a one-time or ongoing need
5. Does the proposal leverage other funding sources or volunteers

Current Members:

- Yugasha Bakshi

- If you are interested in serving, please let me or Kristina know.

Green RFP Breakdown of Proposal Types

- The proposals spanned categories such as: energy, transportation, stormwater management, dining, and water usage.
- Estimated total cost of all proposals \$1.3 million
- These proposals went through a 2 layer review by the office of sustainability and by subject matter experts in the above categories.
- Ranked Category 1 – 4
- Category 1 proposals have merit and are feasible to move forward for subcommittee review
- The following proposals were chosen to move forward:

#	Title & Description	Student Organization	One-Time Cost	VTCAC Points
1	Patton Hall Lighting Upgrade: This proposal would replace old outdated lighting with modern LEDs in most areas of Patton Hall.	CEE 4994 Undergrad Research Project	\$ 62,300.00	1, 4, 10, 12
2	Stroubles Creek Restoration (Phase 7): This proposal would continue stream restoration efforts in this impaired watershed by planting at least 1,200 trees/shrubs and maintaining previous plantings.	Stroubles Creek Coalition, VT Stream Lab, EC	\$ 25,000.00	1, 6, 10, 12
		Total Cost =	\$87,300.00	



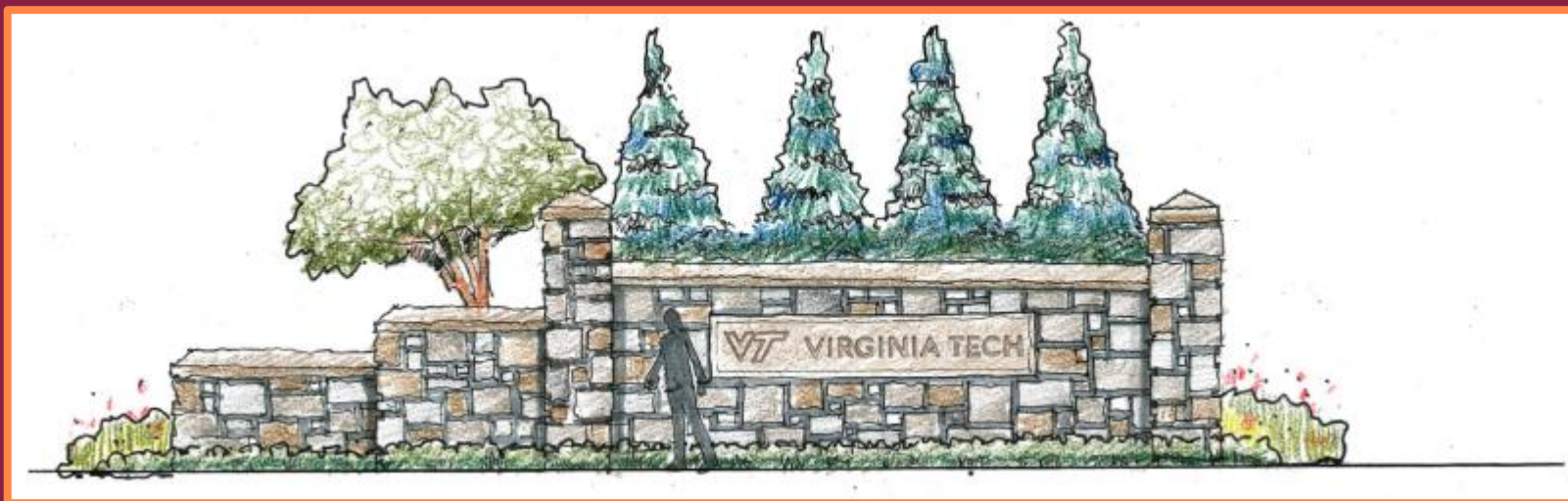
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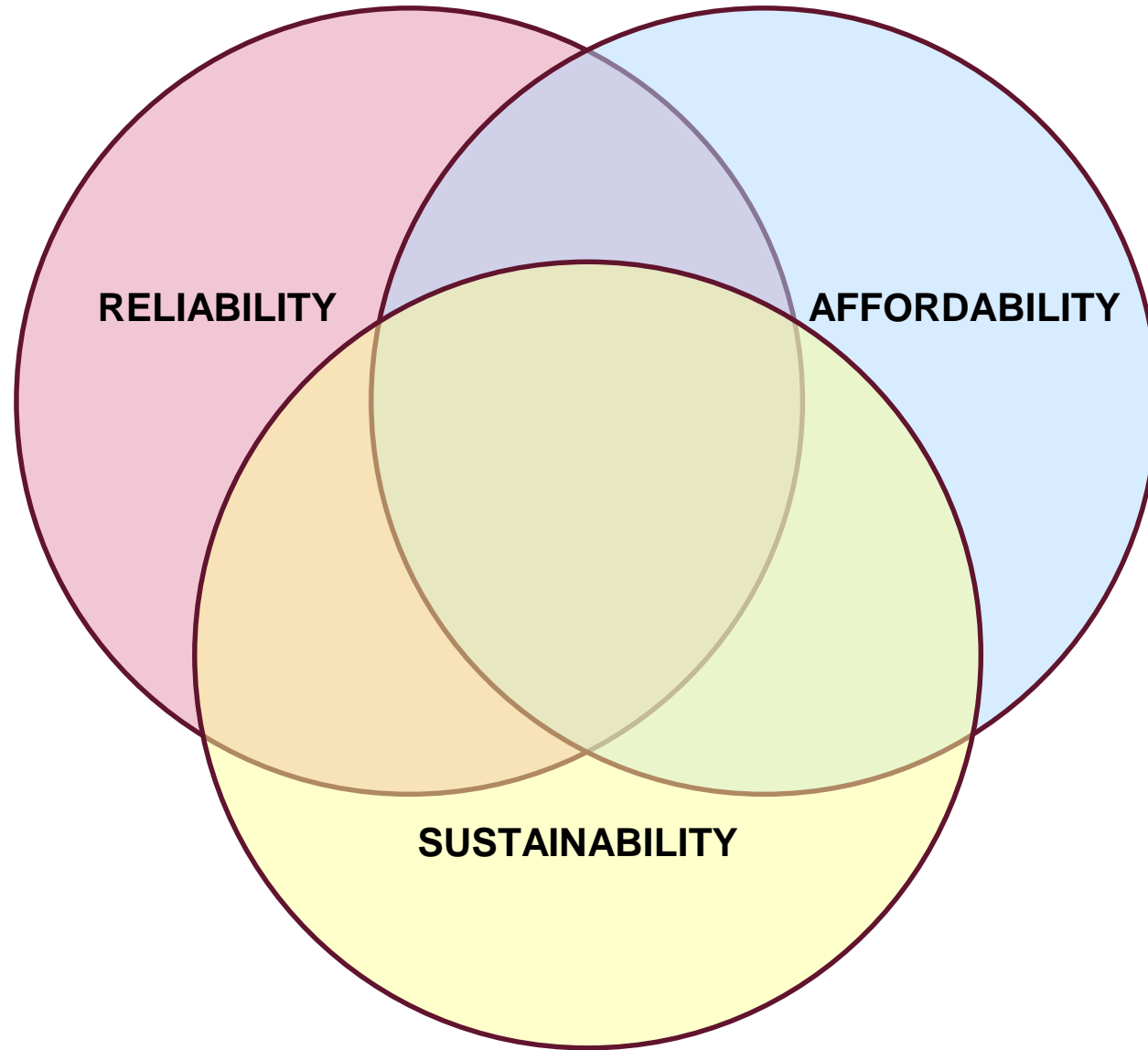


Energy & Utilities

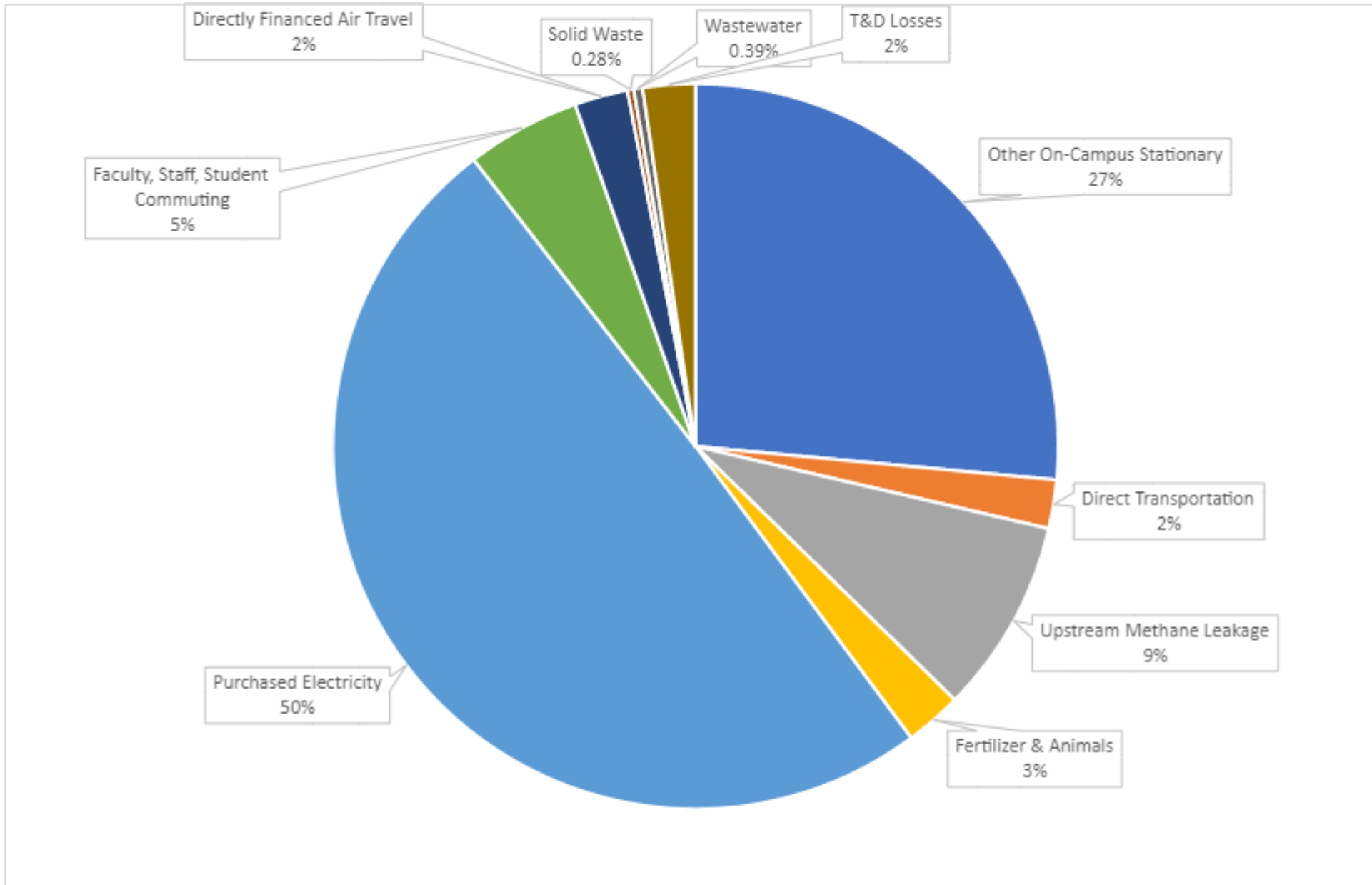
01.22.24 CASE Committee Meeting



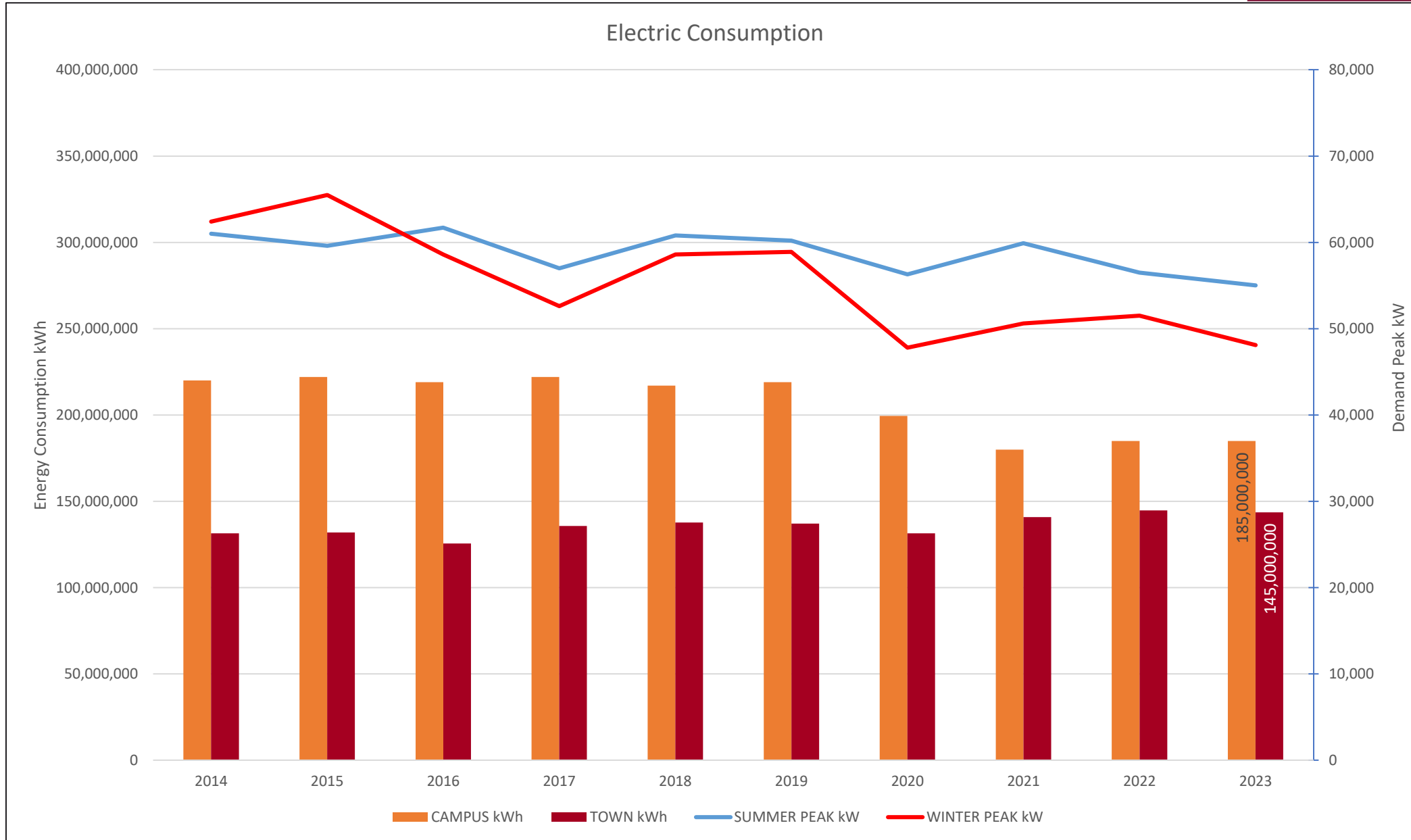
Energy Delivery Goal



VT GHG Emissions, by Source

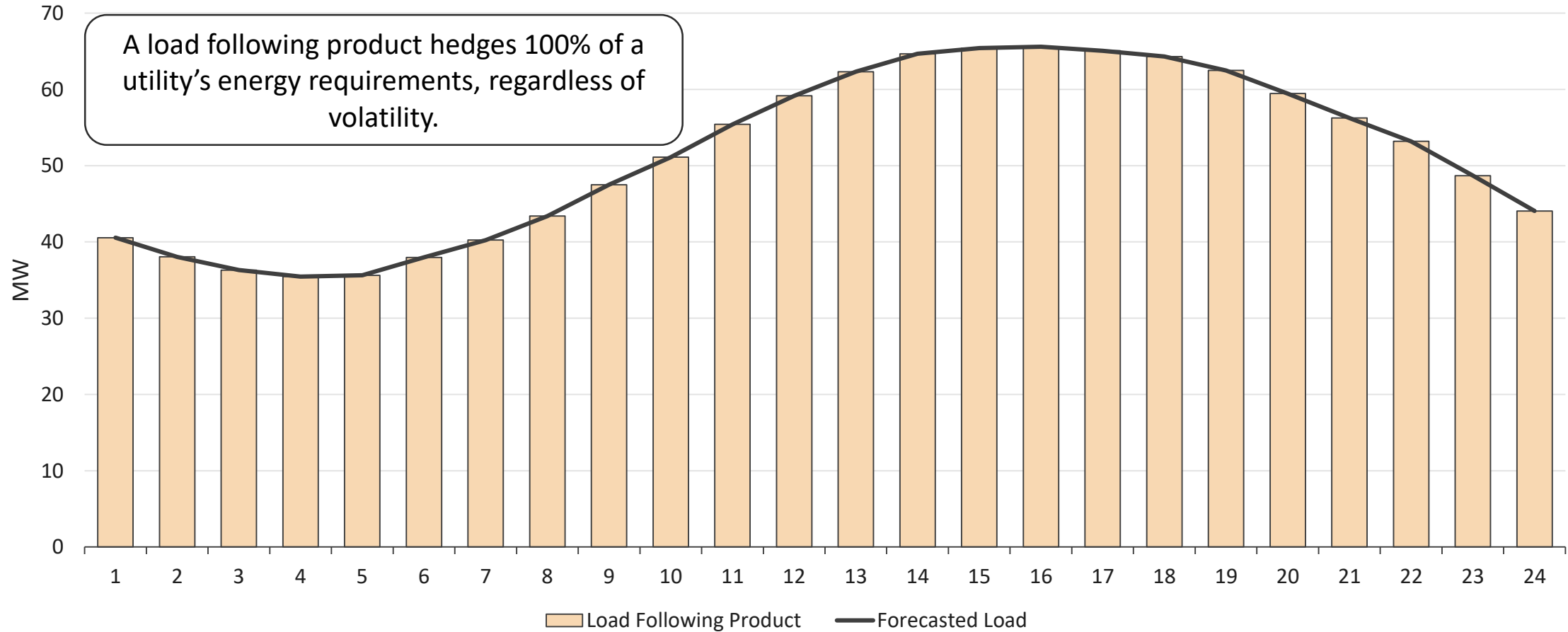


VTES Historical Loads



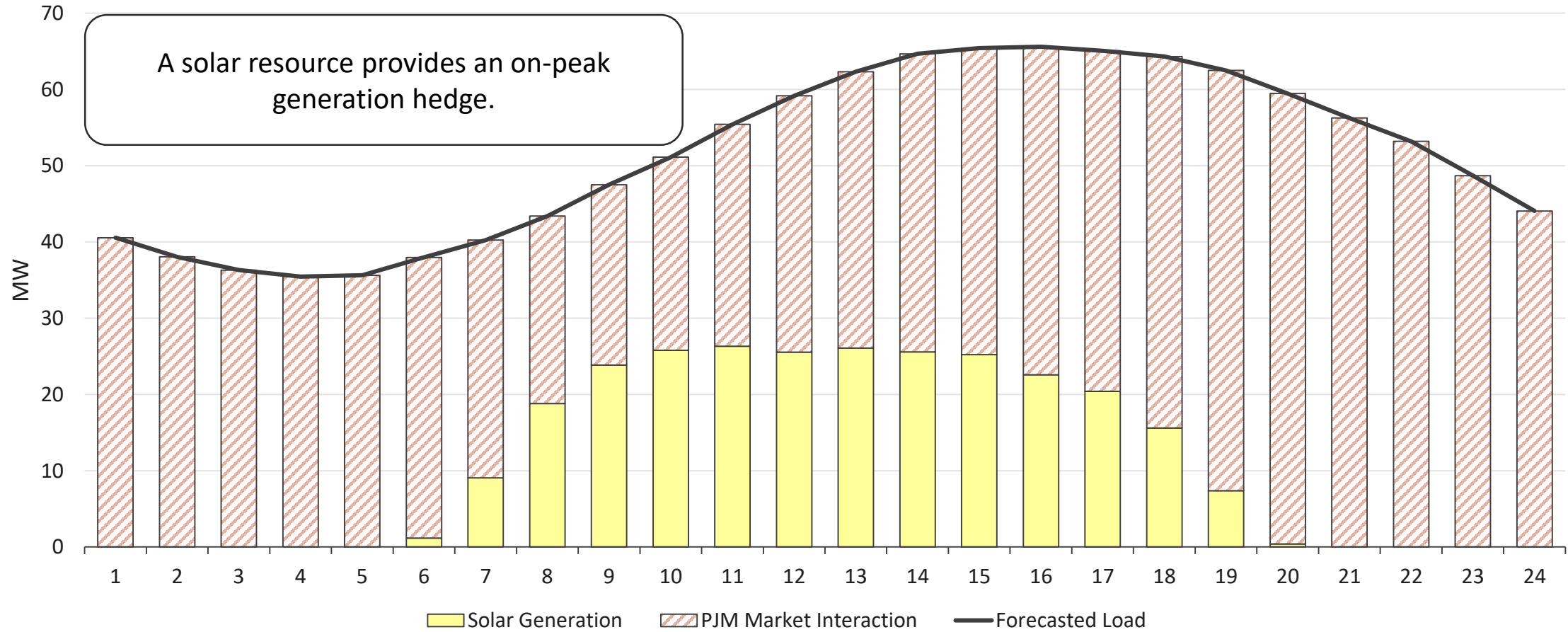
2027 Energy Supply Contract

Average Summer Example



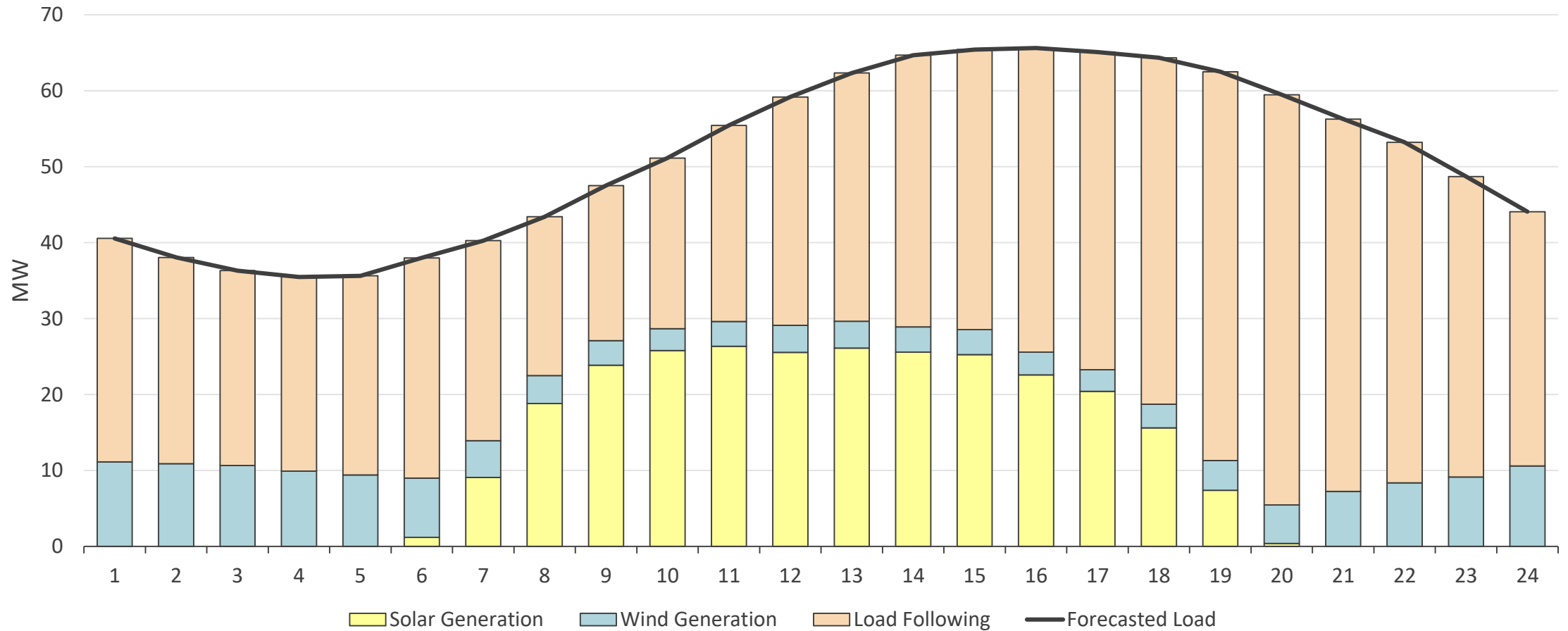
2027 Energy Supply Contract

Average Summer Example – 30 MW Solar



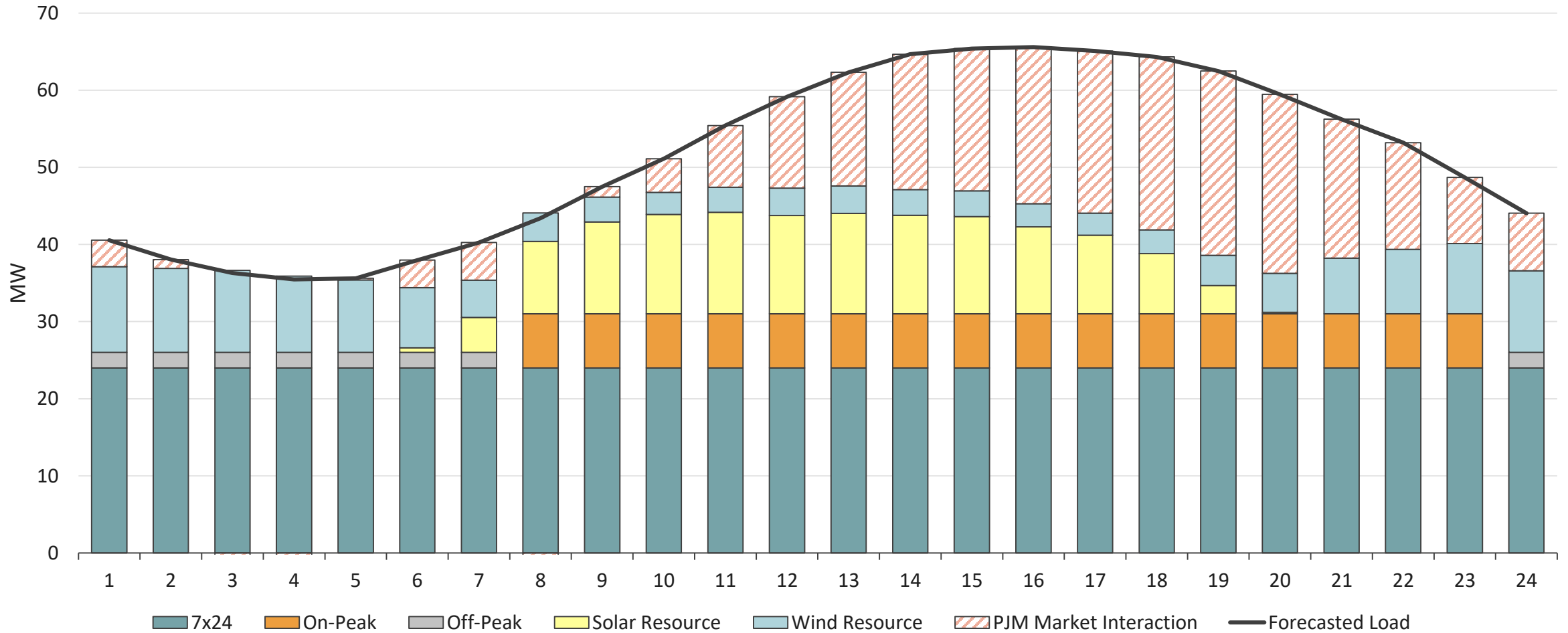
2027 Energy Supply Contract

Average Summer Example – 30 MW Solar, 40 MW Wind

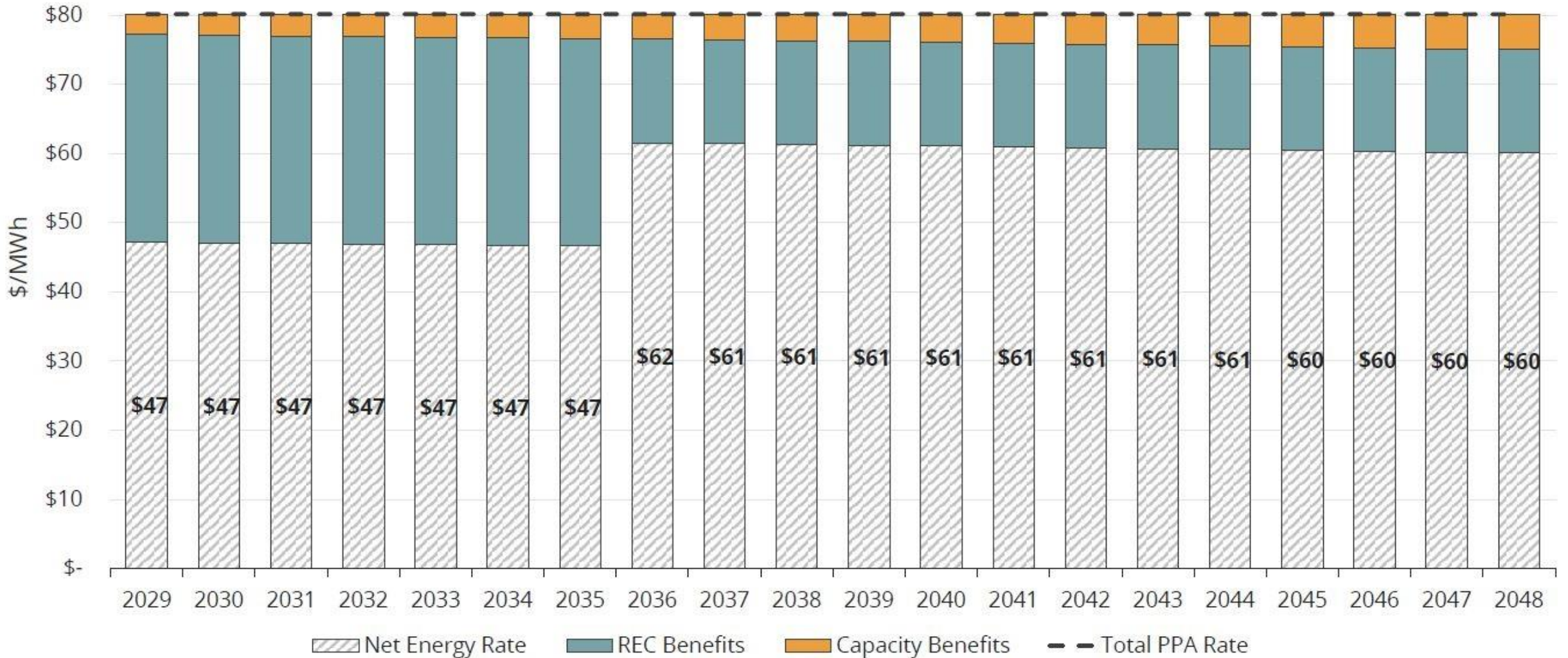


2027 Energy Supply Contract

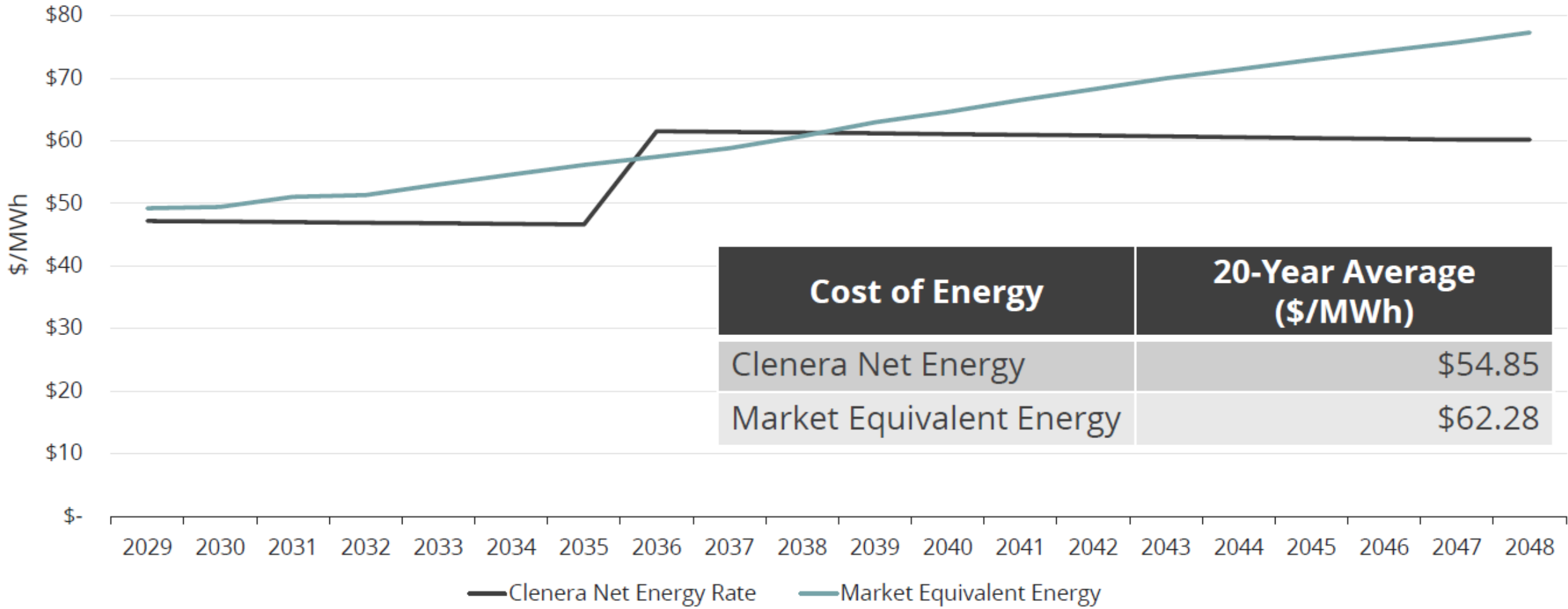
Average Summer Example



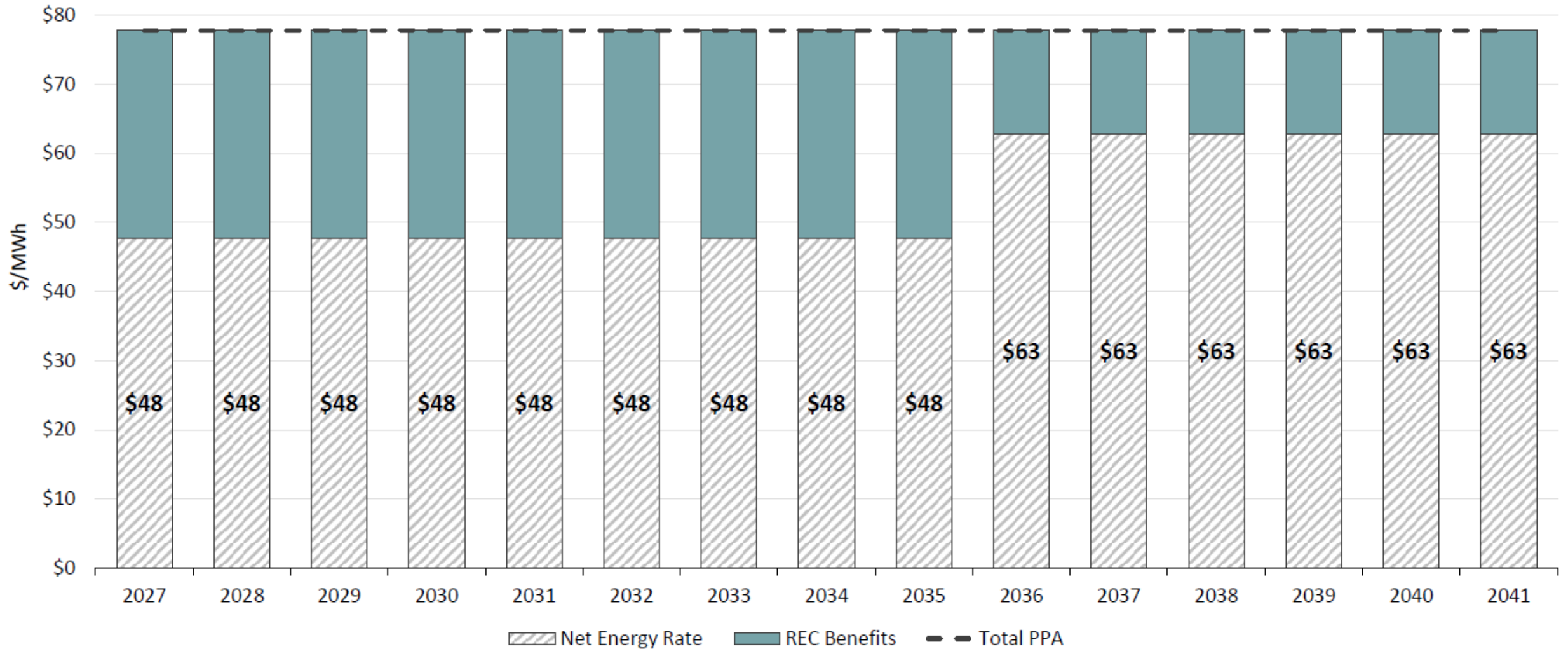
Clenera Solar Economic Evaluation



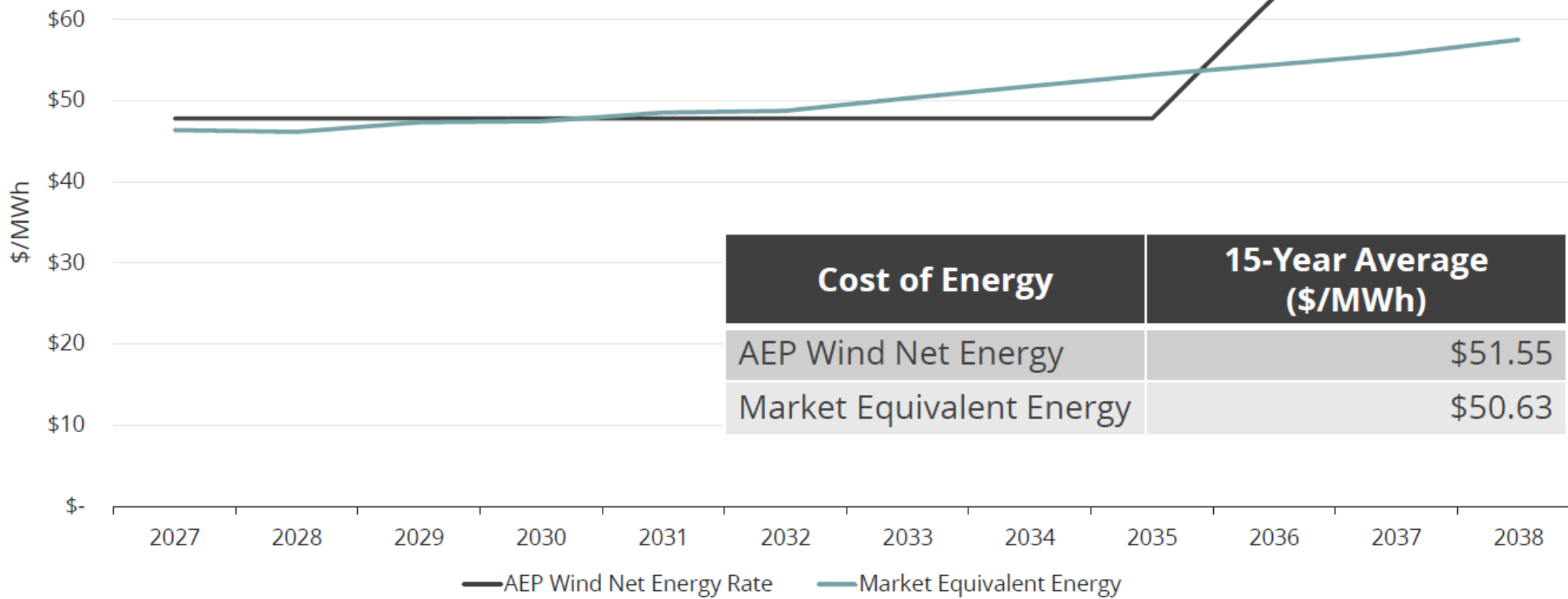
Clenera vs Market Rate Projection



AEP Wind Economic Evaluation

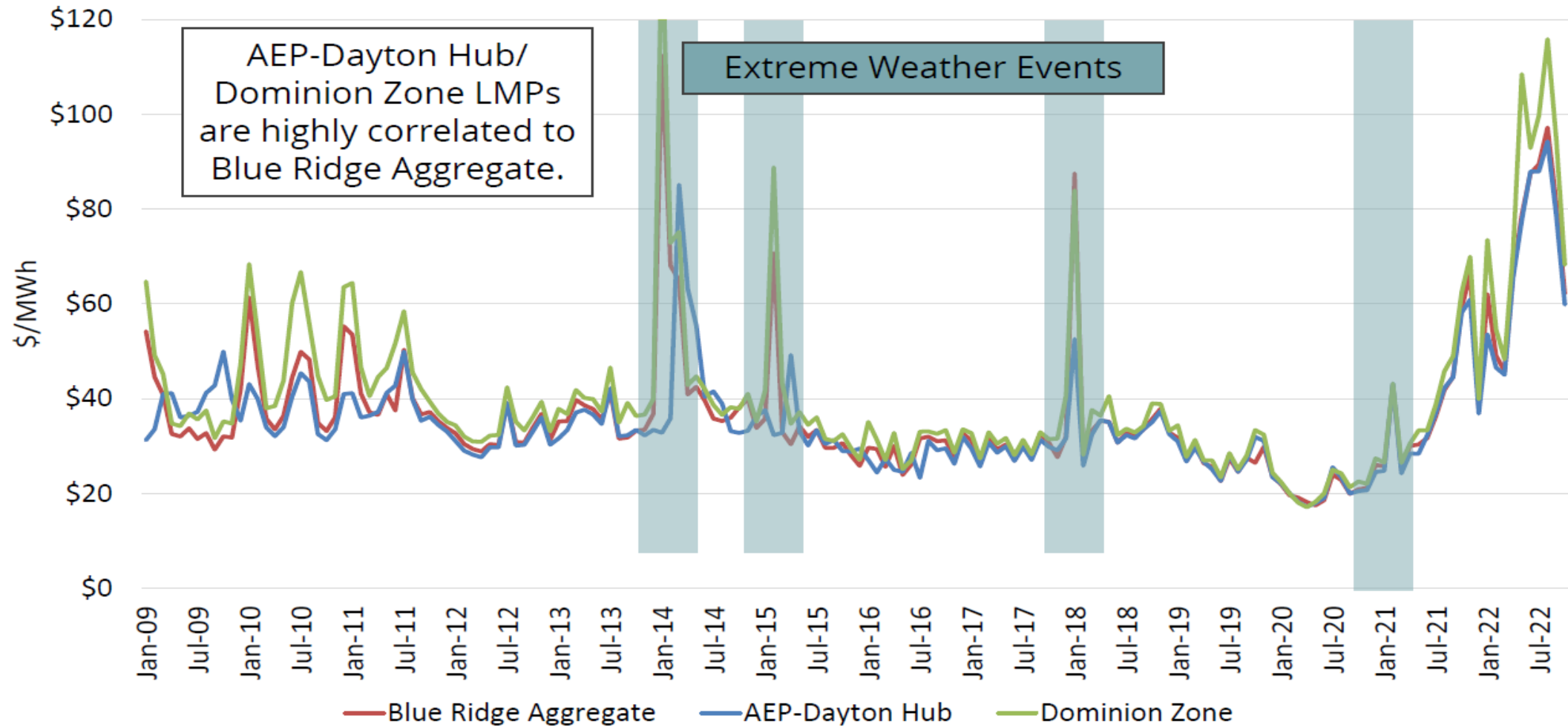


AEP Wind vs Market Rate Projection



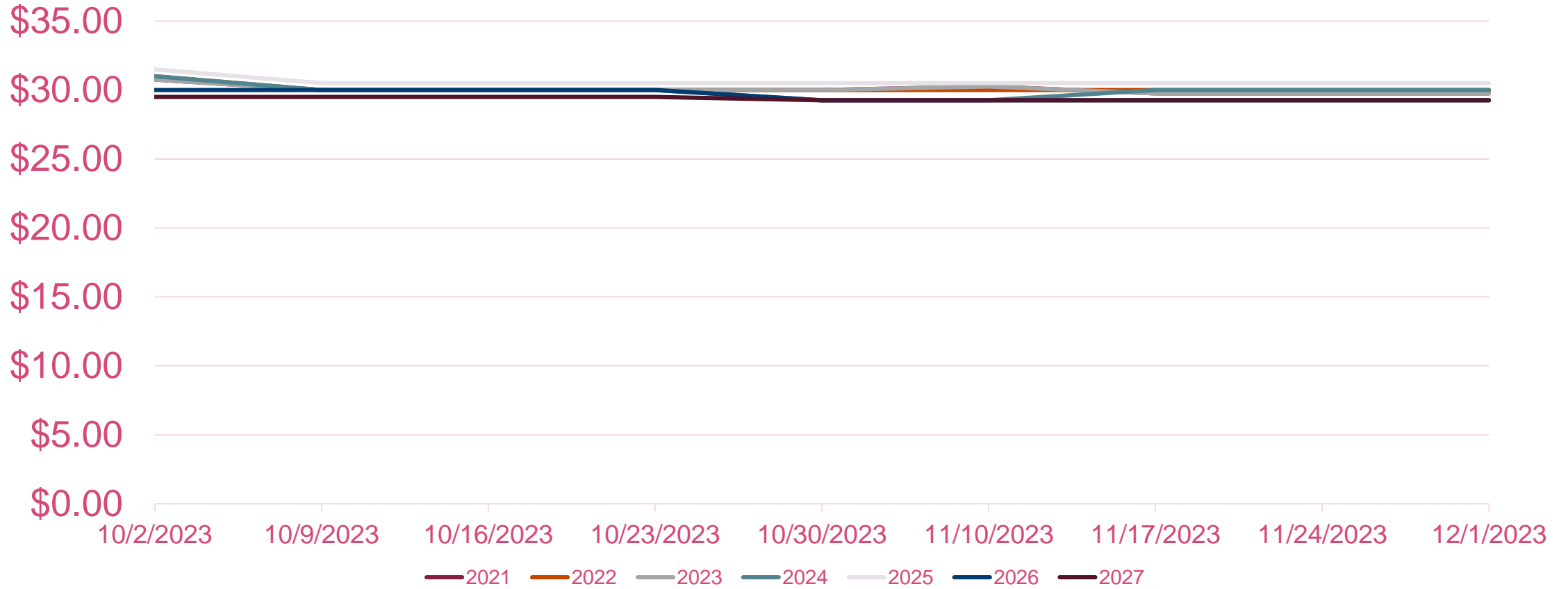
Cost of Energy	15-Year Average (\$/MWh)
AEP Wind Net Energy	\$51.55
Market Equivalent Energy	\$50.63

Historical PJM Market Prices



VA REC Price Trend

VA Tier 1 REC Market Price Trend



A scenic view of a lake surrounded by lush green trees. The foreground is filled with large, vibrant green leaves, some in sharp focus and others blurred. In the background, a calm lake reflects the sky, with more trees lining the far shore. A white rectangular box is centered in the image, containing the word "Announcements" in a blue, sans-serif font.

Announcements



**January 28th-March
23rd (8 weeks)**

**Colleges across the
United States and
Canada report the
amount of recycling and
trash collected each
week**

**Mark your
calendars!**

**Our March 25th CASEC
meeting will be hybrid:**

- **Fralin Hall Auditorium**
- Hosted by the Office of
Sustainability Graduate
Students

New Microsoft Team for Subcommittee Conveners

Purpose is to provide a place for conveners (leaders) to share ideas, best practices, and resources. Let Kristina know if you have questions.



Sustainability Literacy and Culture Assessment

- Part of STARS (AC-6 and EN-6)
- Assesses general understanding of sustainability and climate issues, behavior, and beliefs
- Feel free to pass it around to other people you know:

<http://bit.ly/VTSustainabilitySurvey>



FREEZER CHALLENGE

Interested Faculty,
Staff, and Students can
reach out to Yugasha
Bakshi for more
information:
yugashabakshi@vt.edu



WHAT?

International competition to
promote best practices in cold
storage management.

WHY?

Reduce your lab's
environmental impact!

WHEN?

Get credit for your actions till
July 31st 2024.

For more information write to sustainability@vt.edu



Next Meeting:

**February 26, 2024
2:00 p.m. via Zoom**

