

OCTOBER 25, 2023

Sustainable Agriculture Processing

Optimizing Resource Use and Management Using AVEVA™ PI System™

Amber Venteicher, Jamilly de Oliveira Brito, Kim Price, and Rachel Robertson

AVEVA



Amber Venteicher

Digital Foundation & Solution Architect

- Cargill
- Amber_Venteicher@cargill.com



Jamilly de Oliveira Brito

Digital Solution Architect

- Cargill
- Jamilly_deOliveiraBrito@cargill.com

Cargill at a Glance



We exist to nourish the world in a safe, responsible and sustainable way.

155,000
employees

Working in
70
countries

We provide insights to our partners



Data & Analytics



Market expertise



Risk management



Financial solutions

We transform raw materials into finished goods



Animal nutrition



Food ingredients



Protein



Branded foods



Bioindustrials

We move products around the world



Roads



Rail



Rivers



Oceans

- Sustainable Agriculture is how we help people and the planet *thrive*.
- Climate:
 - Reducing emissions in our extended supply chain by 30% by 2030 and absolute operational emissions by 10% by 2025.
- Land & Water:
 - Eliminating deforestation in our supply chains and achieving sustainable water management in all priority watersheds by 2030.
- People:
 - Promoting and respecting human rights as outlined by the United Nations Declaration on Human Rights and improving the livelihoods of 10 million farmers by 2030 through training and better access to markets.



Kim Price

Manufacturing Analytics Engineer

- Cargill
- Kim_Price@cargill.com



Rachel Robertson

Resource Efficiency Lead

- Cargill
- Rachel_Robertson@cargill.com

Who wants to help the world *thrive*?

AVEVA

FIVE “easy” steps to empower Energy Model creation

1. Define Model Scope
2. Develop Model equation
3. Add Model to Data Contextualization, Modelling and/or Analysis tool(s) for your historian
4. Develop Troubleshooting Guide
5. “Go Live” aka “Start USING It”

What does it look like?



Why?

Understand Energy Performance

Changing Production
Changing Products
Changing Weather

Empower Our Teams

Technicians Interactions are 24/7
Model Almost Always Achievable
Troubleshooting Guides to Support

Deliver Value

Timely Process Corrections
Minimizing Poor Performance

How?

- Start with a single department / area.
 - Start with a single pi tag, if you need to



How?

- Use the processes you already use.
 - What tools do you already use for statistical modeling?
 - How do you currently track opportunities?
 - Who needs to be influenced?
 - Where does this data need to go?

How?

- Standardize everything you can, after you need to
 - Once a clear process emerged, more formal training started
 - Once it was screwed up enough times, we made a template (then four!)
 - Took feedback, made a better template (four-in-one!)
 - Then the training was formalized and made freely available to other businesses

Using templates made it so that *anyone* could implement the process of deploying an Energy Model- reducing the Cost of Curiosity

-Kim Price

What do we want to model?

High-cost processing area

High intensity processing area

Intensity: cost/unit production

Variability in the:

Process

Costs

Intensity

Energy Models have shown:

Equipment Failures

Equipment Plugs

Incorrect
Installations

Equipment not
shutdown

Equipment Leaks

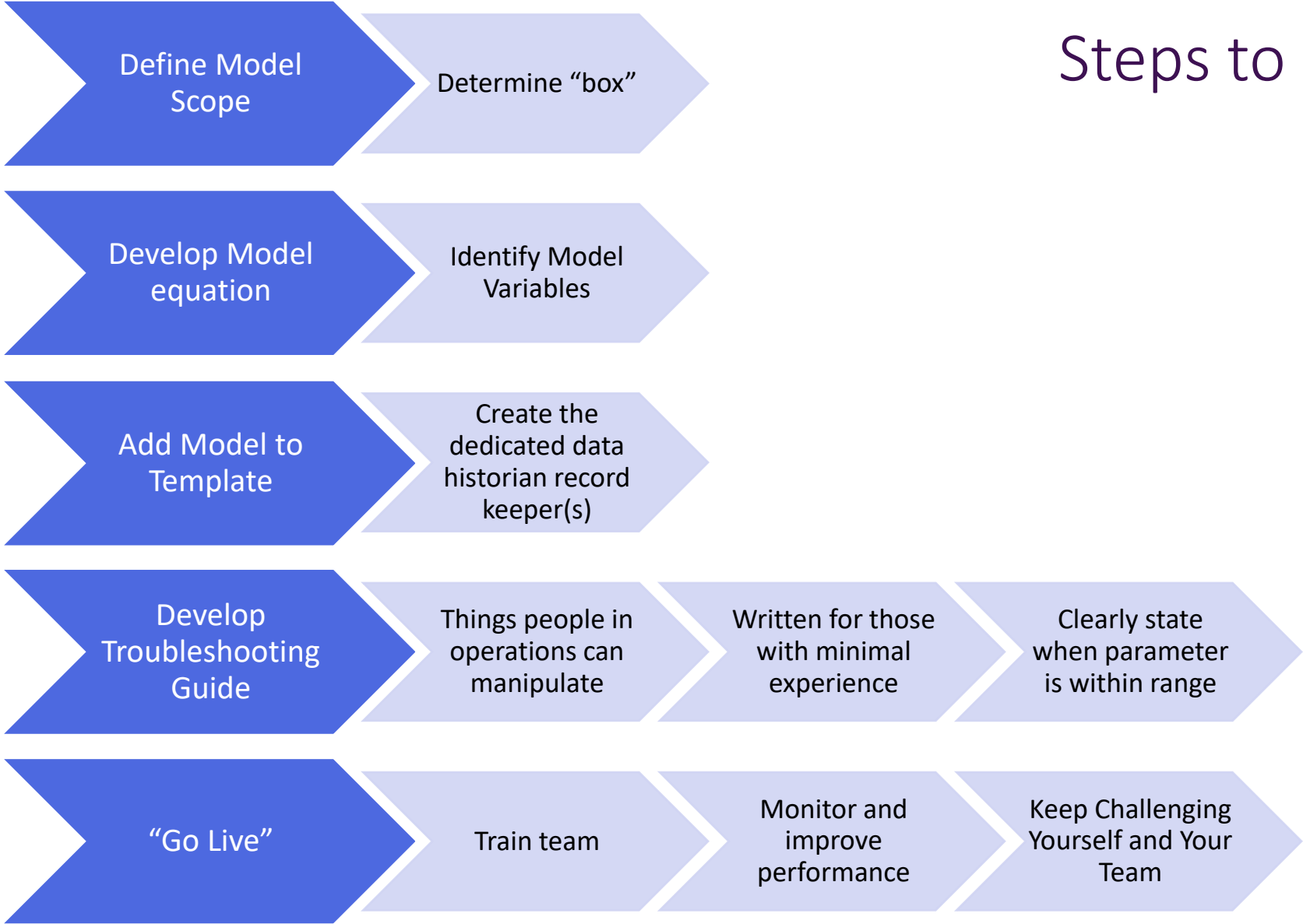
VFDs Wired
Backwards

Motors Idled instead
of shutdown

Mechanical Failures

Duplicate Asset with
steam online

Steps to Empower



7 Tips for using an Energy Model

- Don't roll it out before it's ready

Timing



- Do your homework to understand how each person might feel about the change

Pework



- Talk to people as people
- Vary methods
- Tell the story
 - Elevator speech

Communication



- Show up for troubleshooting
- Don't blame the model

Troubleshooting



- Ask for feedback and honor the feedback loop.
- It's not your tool, can't function only for you

Feedback



- There's often a gap between what leaders think is frequent communication and how employees actually perceive it.

Repeat



- Walk the talk.
- Don't blame the model

Champion



We want to help the world *thrive*.

AVEVA

Questions?

Please wait for the microphone.
State your name and company.



Please remember to...

Navigate to this session in the mobile app to complete the survey.



Thank you!

This presentation may include predictions, estimates, intentions, beliefs and other statements that are or may be construed as being forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could result in actual outcomes differing materially from those projected in these statements. No statement contained herein constitutes a commitment by AVEVA to perform any particular action or to deliver any particular product or product features. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

The Company shall not be obliged to disclose any revision to these forward-looking statements to reflect events or circumstances occurring after the date on which they are made or to reflect the occurrence of future events.

 [linkedin.com/company/aveva](https://www.linkedin.com/company/aveva)

 [@avevagroup](https://twitter.com/avevagroup)

ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

Learn more at www.aveva.com