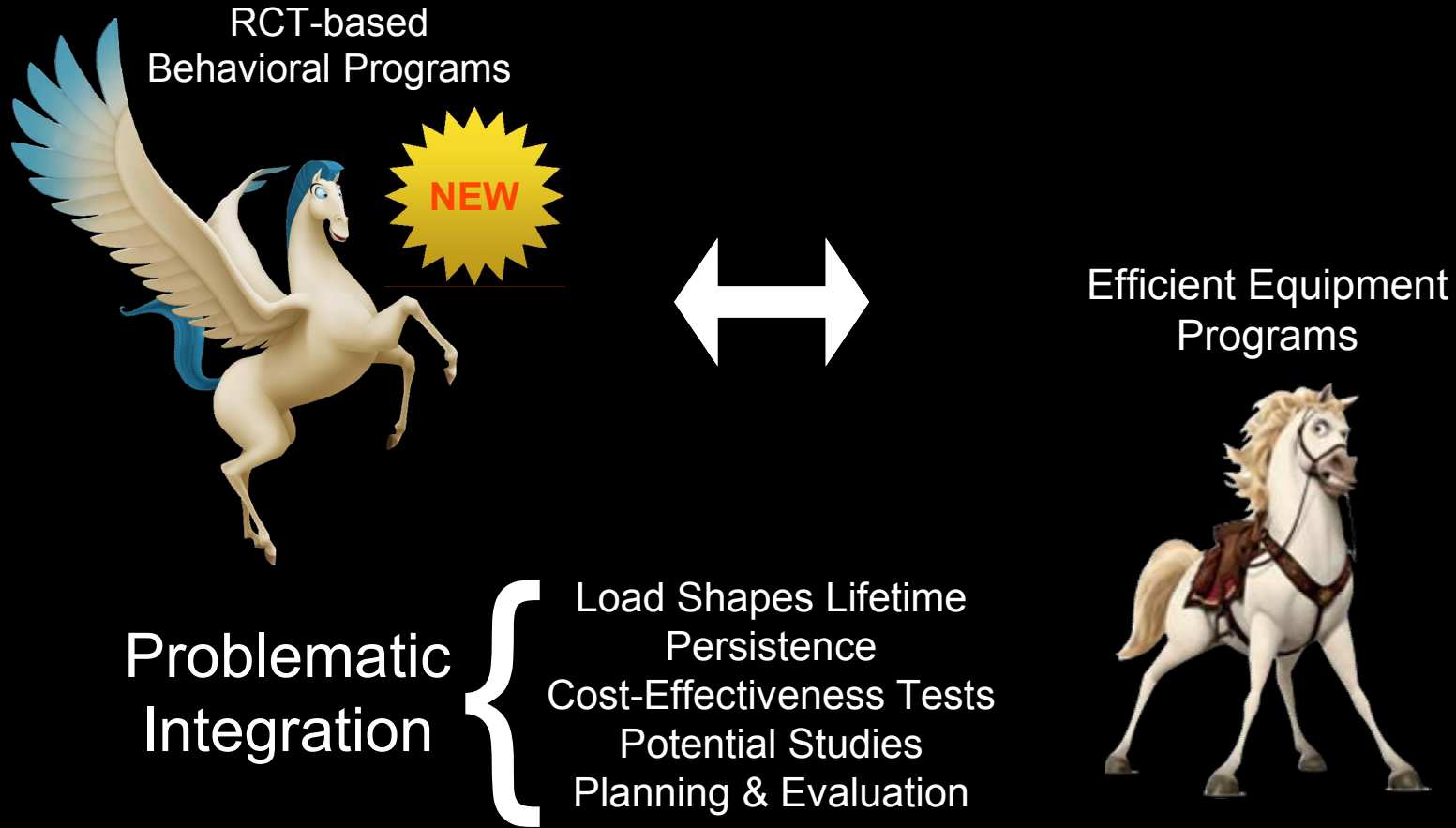


The REAL Problem with Behavioral Savings

and what we can do about it

Familiar Challenges with Behavioral Savings...



.....
But, the *REAL* problem is more fundamental...
.....

The REAL *Problem* with Behavioral Savings

Not as *behavioral*
as we think



Let's find out why!

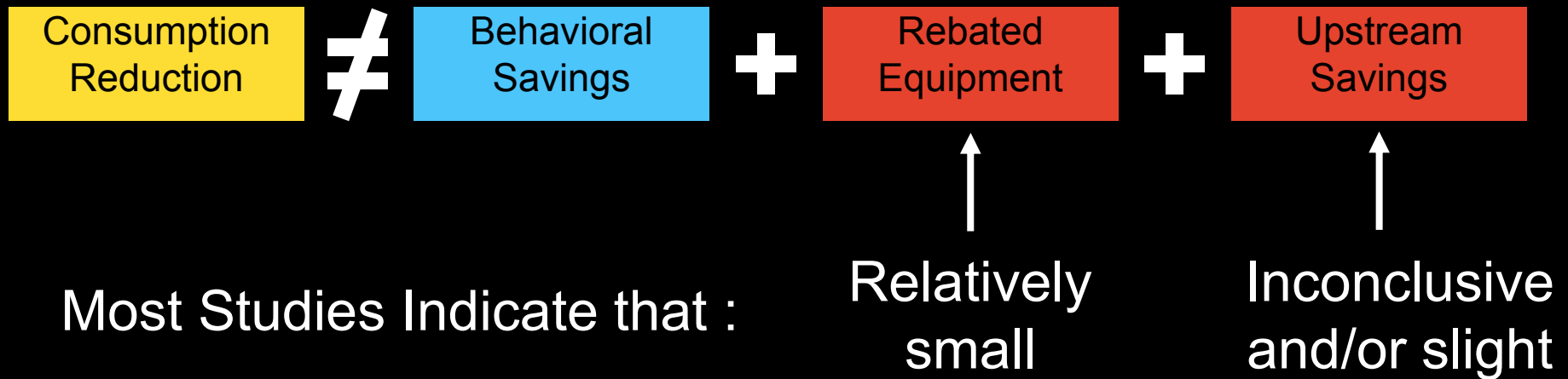
Exposes a bit of a rift...

<input type="checkbox"/>	Satisfactory
<input checked="" type="checkbox"/>	Needs Improvement

... and a real opportunity



Behavioral? Let's do the math...



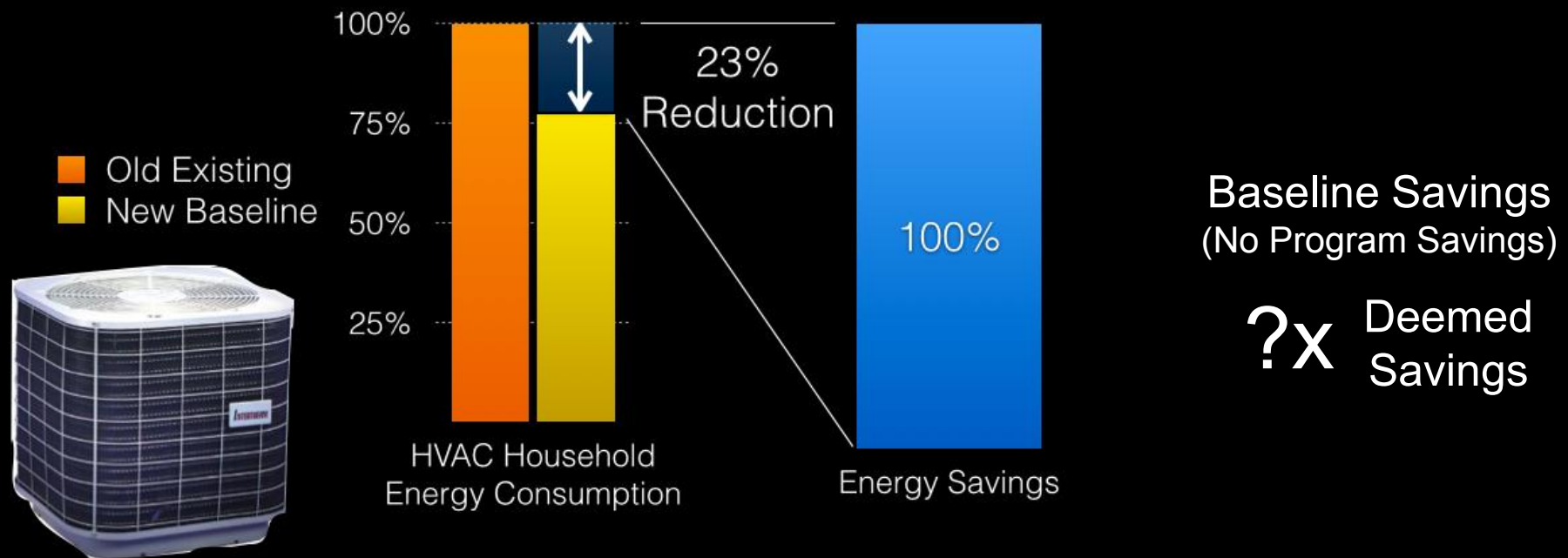
Subtracting the savings from non-behavioral programs doesn't render HER consumption reductions "behavioral"

Not as *behavioral* as we think #1

“Small” size of savings from rebate program participation:

But...

1. They don't include **out-of-program** savings

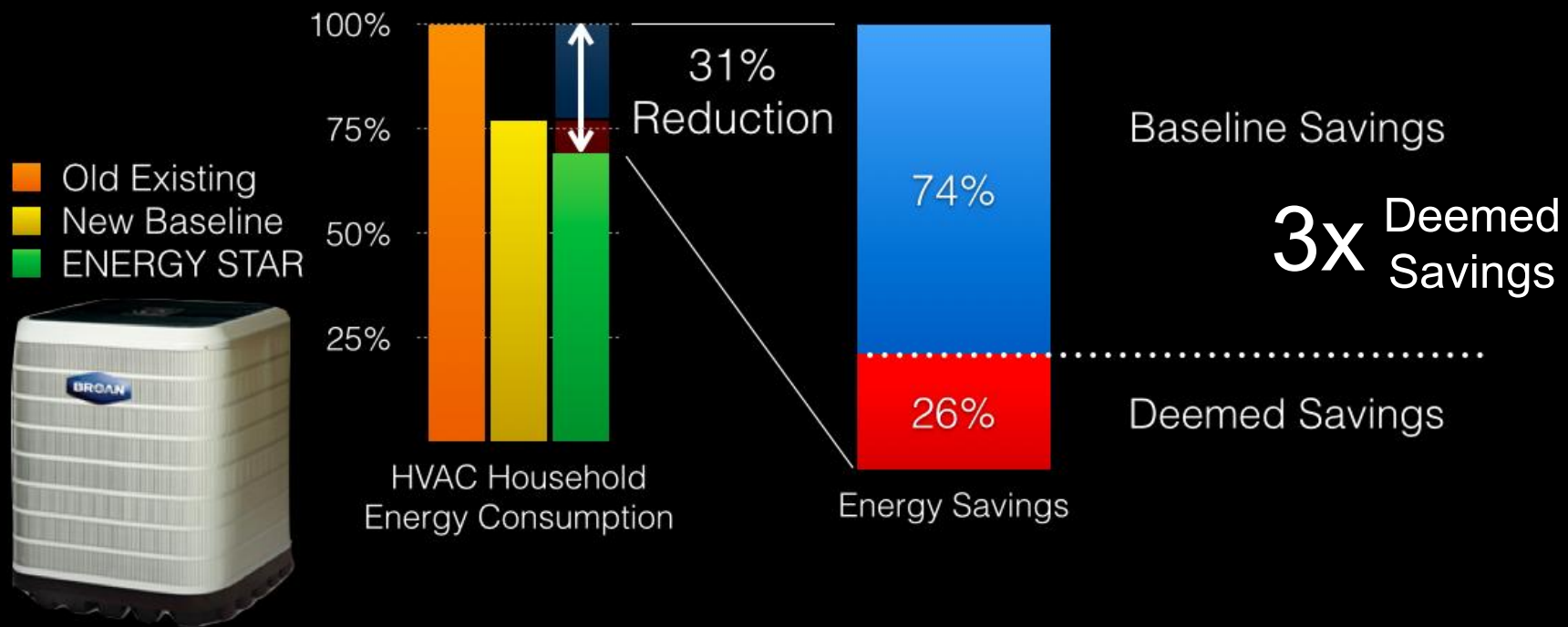


Not as *behavioral* as we think #2

“Small” size of savings from rebate program participation:

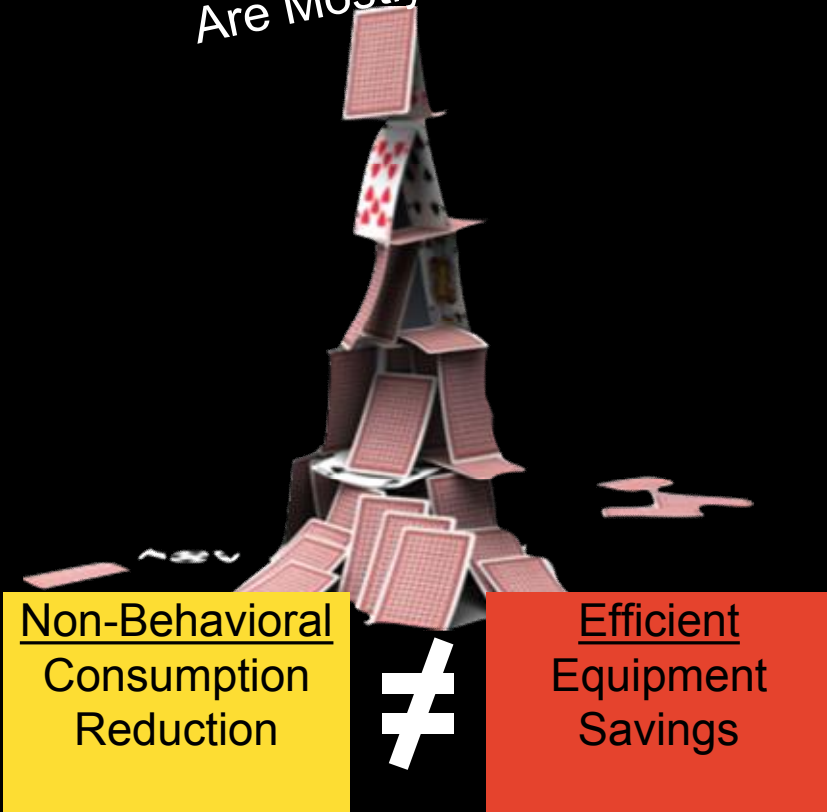
And...

2. Program savings typically exclude baseline savings



Belief That Savings
Are Mostly Behavioral

OPINION: It really doesn't help that we've named them "Behavioral" Programs



FACT: Utility savings claims drive most study designs and data availability

Flawed Assumptions Underpin Much of Conventional Understanding About Behavioral Program Savings

Support From Existing Studies:

“Remarkably, consumers do not fully habituate: they still respond substantially if treatment is continued after two years”

The Short-Run and Long-Run Effects of Behavioral Interventions (2013, Alcott & Rogers)

“10% of measured savings was due to participation in other programs ”

Puget Sound Energy HERs Program: Three-year Impact, Behavioral and Process Evaluation (2012, KEMA)

“About one-quarter of 2013 HERs savings due to CFL uptake by treatment group”

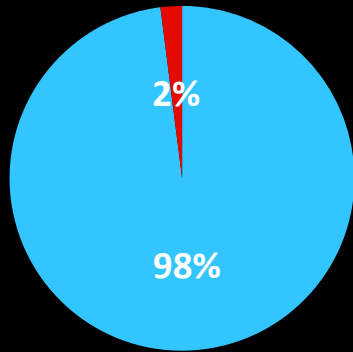
Neighbor Comparison Reports Produce Savings, but HOW? (2014, PG&E)

“structural changes accounted for approximately 40% of savings”

SMUD - Home Energy Report Evaluation PY 2008 - 2011 (2012, Integral Analytics)

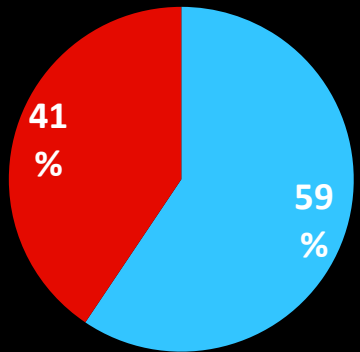
Clues from the literature: **Lengthy Persistence; Non-Trivial Structural Savings**

Conventional Understanding



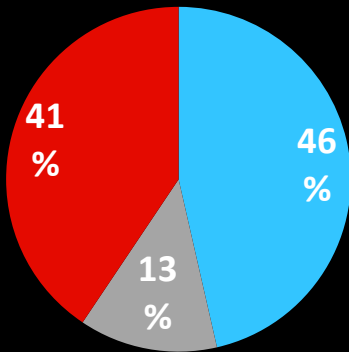
■ “Behavioral”
■ “Structural”

Actual?



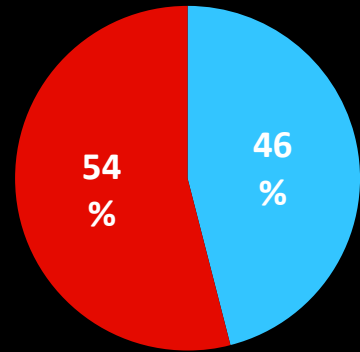
SMUD
(2012, Integral Analytics)

Thermostats?



~2x Savings of other
“behavioral” actions

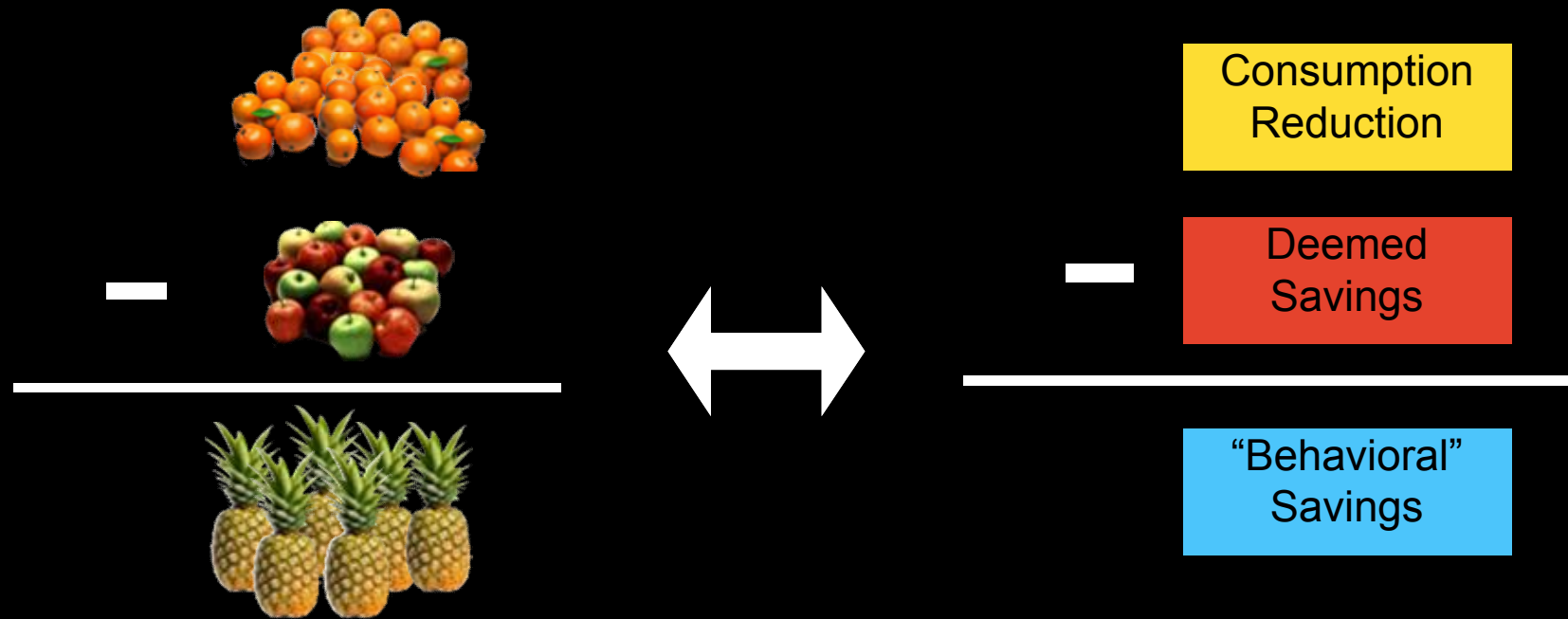
Revised?



Automaticity and
Optimizations

Soon, the bulk of behavioral savings could perhaps be considered “structural”

Business As Usual: Does Not Compute



Why? Because Deemed Savings Exclude a Significant Amount of Non-Behavioral Consumption Reductions (Out-Of Program & Baseline Savings)

Three Keys to Unlock Opportunity

- 1** Our understanding of “behavioral” programs may **need some serious revision...**
...with potentially significant impacts



- 2** Realize that **we know more than we think** about the constituency of “behavioral” savings...

Explore how to **use structural data sources** (AMI, Connected, etc.) to **shine more light into the black box** of “behavioral” savings results, evaluation, potential, planning and implementation.



- 3** Discard dichotomous thinking to better **Develop Fully-Integrated, Highly Effective Approaches...**



Thank you!

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