

# Response to *The Case of indieDwell*

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# The Case for Off-Site Housing Production as Means to Reduce Costs

- Save on Labor Costs
  - Range from robots to more assembly line process of manual labor
  - May also save by substituting less skilled/non-unionized workers
- Save on Time
  - Allow site prep and building construction to proceed simultaneously
  - Avoid delays due to weather
- Save on Materials
  - Limit wasted materials, more efficient procurement possible
- **Turner Center Estimate of Overall Savings from Module Construction Could Reach 20%**

# Challenges to Realizing Potential Savings

- Achieving Consistent Scale of Demand
  - High fixed costs of factory need to be covered over time
- Cookie Cutter Design and Quality Perceptions Can Limit Appeal
- Additional Costs
  - Transporting and protecting bulky modules & storing them near the site
- Regulatory Barriers Related to Code Compliance & Inspections
  - Inspections in factory and on site can undermine time savings
- Difficulty Modifying Modules on Site
  - Small tolerances for errors when installing requires precision and skill
- Traditional Construction Financing Misalignment
  - More funding needed upfront rather than as on-site progress proceeds

# Some Critical Barriers Addressed in Colorado Case Study of indieDwell

- Overcoming Start-up Costs
  - Philanthropic and public investments subsidized high fixed-costs of setting up factory
- Regulatory Barriers
  - Significant involvement at state level to smooth local regulatory barriers
- Stigma of Design and Quality
  - Promotion of models and broad support from government and others
- **Need Leader to Spearhead Broad Effort to Overcome Barriers**

## Some Questions for Further Exploration

- What specific steps were taken to reduce **regulatory barriers**? How has inspection process been handled?
- How smoothly has **on-site construction** gone? Have there been challenges in transportation and installation?
- Has **construction financing** been a challenge? If so, what steps taken to address?
- How **consistent is demand** over time? Can the public sector help smooth demand by mandating off-site construction methods?
- **Big Bottom line question: What are actual cost savings?**

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