

# BUILDING BETTER JAILS THROUGH SMART TECHNOLOGY AND TRAINING

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**Crumbling infrastructure, deferred maintenance, and rising utility bills** are taking their toll on correctional budgets, at the local, State, and Federal levels. And due to an ever-increasing population, spending on jails and prisons continues to demand a larger share of tax dollars. With increasing needs and shrinking budgets, correctional leaders must look for smarter ways to improve facilities and ensure the safety of offenders, officers, and the greater community.

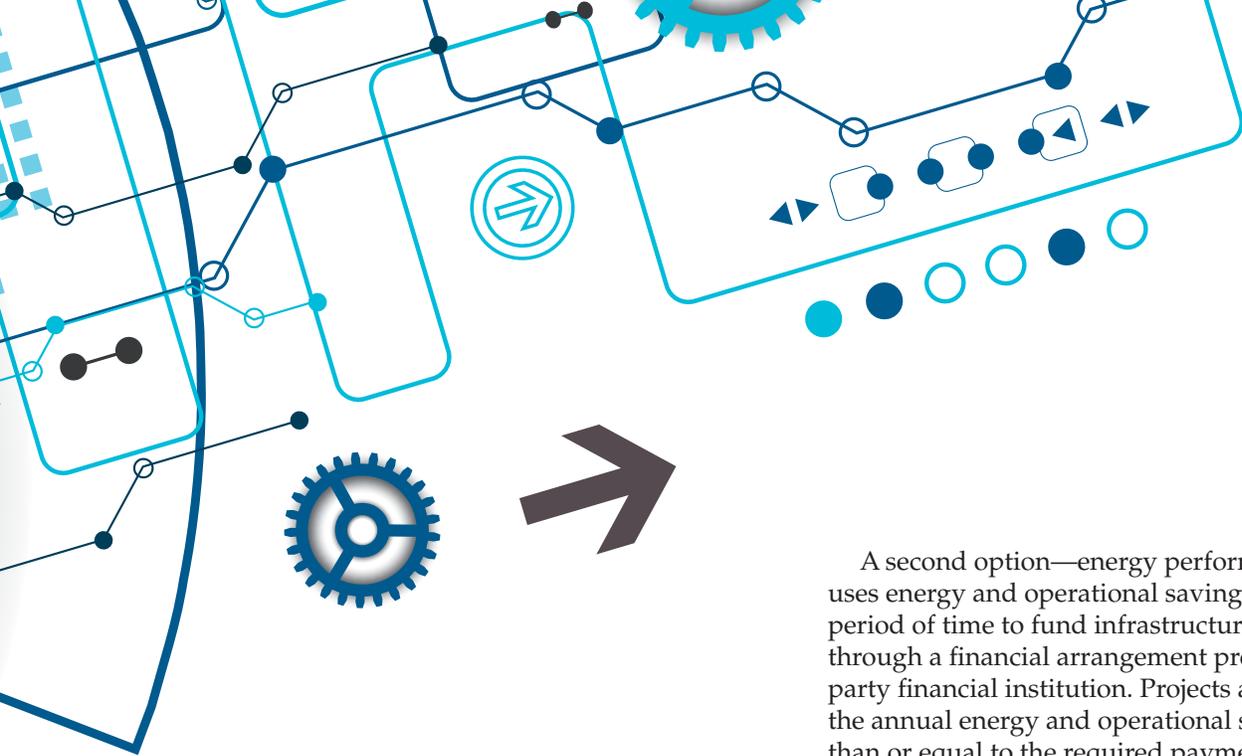
## **Safe, Efficient Environment**

One solution to these increasing demands and fiscal challenges is the creation of “smart” jails and prisons. A smart corrections facility creates a performance infrastructure that embraces emerging technologies to enable a safer environment for corrections officers and inmates. This could mean improvements to perimeter lighting and fencing or the ability to intercept illegal calls and drone activity, deterring criminal activities within a

facility. It can also mean the introduction of radio frequency identification (RFID) technology that tracks inmate movements and alerts staff to unusual concentrations of people in specific areas.

Smart jails also feature connected building systems with a single interface to monitor systems and equipment throughout the facility. Connected systems automatically generate data and continually make complex decisions that contribute to improved building efficiency, comfort, and safety.

Creating smart jails begins with the identification of challenges specific to a facility. Those who manage the facility are then tasked with planning and prioritizing short- and long-term goals that address those challenges while still supporting the mission of the facility, which includes providing safer, more sustainable environments.



### Alternative Funding

To fund these technologies and infrastructure improvements, jails and other corrections facilities typically rely on an appropriations process that derives funding from tax dollars. Often these resources cannot keep pace with demands for improvements, forcing local governments and their corrections departments to embrace alternate funding mechanisms.

Public-private partnerships provide one such mechanism. This untraditional approach to construction and building transfers the risk of design, construction, finance, and operations to a private developer in exchange for guaranteed fixed payment terms.

A second option—energy performance contracts—uses energy and operational savings over a specified period of time to fund infrastructure improvements through a financial arrangement provided by a third-party financial institution. Projects are designed so that the annual energy and operational savings are greater than or equal to the required payments over the term of the contract, leaving a net neutral impact on an organization's or department's budget.

### Inmate Vocational Training

Another solution to the fiscal challenges brought by a growing inmate population are programs designed to better equip inmates for their return to their community, helping them to become more productive upon their release and ensuring the safety of the community. Their productivity becomes important when you consider national statistics that show 48% of the inmates who are released each year will return to a correctional facility within the first three years of their release. The causes for recidivism include poverty and a lack of educa-





tion, a lack of training programs/preparation prior to release, an inadequate support network, and difficulty in transitioning from a structured to an unstructured environment.

At the local level, preparing inmates for their return to the community begins with an assessment to learn what motivates them and what support factors could allow them to be more productive when they leave jail. Next, eligible inmates are provided with opportunities to participate in a wide array of activities. At many county facilities, like Washington County Jail in Oregon, these opportunities include: religious services; drug and alcohol prevention groups; cognitive and behavioral groups; women's groups on anger management and domestic violence prevention; life skills classes; education; and in-depth drug and alcohol relapse prevention groups.

### Green HVAC Vocational Program

It is possible to address the problem of recidivism and tie it to energy efficiency by creating inmate training programs in energy sector skills. One example is a vocational program that can provide inmates the education and hands-on experience necessary to obtain jobs as building maintenance specialists, HVAC mechanics, facility controls technicians, and facility maintenance electricians.

Like other programs at the local level, a good vocational program begins with an evaluation of an inmate's current reentry program performances. The evaluation includes a job-skills assessment to identify offender skills/interests and those best suited for program success. The results enable customized curriculum, equipment, tools, program materials, and certifications.

To date, this vocational program has been introduced at the State level. For example, Virginia's Indian Creek Correctional Center in Chesapeake, Virginia, includes a Green HVAC vocational program as part of its inmate reentry initiative to increase offenders' chances of returning to society after release. The same program is also part of the Virginia Department of Corrections' (DOC) broader efforts to bolster energy, water, and operational efficiency.

In 2005, the DOC signed an \$8.2 million contract that is reducing annual energy and operational expenditures by an expected \$733,707 over 15 years. The work includes lighting and technology upgrades, and installing a new 300-panel thermal system, along with new fixtures and electronic controls, to decrease water use by more than 244 million gallons by 2020.

## Energy Savings Fund Program

Four years later, the State, along with an energy service company, linked energy efficiency and inmate reentry goals by using savings generated by an energy performance contract to offset the cost of their Green HVAC vocational program. The reason for the program? For every offender who successfully re-enters society and does not return, the commonwealth of Virginia avoids annual incarceration costs of approximately \$25,000.

Led by experienced instructors in a special training facility built with offender labor and equipped with state-of-the-art HVAC equipment, the three-part program gives students the opportunity to learn HVAC basics, including maintenance and installation, before launching into progressively more technical aspects of the trade. The program culminates in a final portion focused on computerized environmental control.

So far, the results in Virginia are encouraging: In 2015, Virginia posted the lowest recidivism rate in State history—22.8%, which is also among the lowest in the Nation. Additionally, in 2016, the State reported more than 50 offenders graduated from the training program, with more than 35 employed upon release from a correctional facility.

## Opportunities at the Local Level

Beyond its success, what makes Virginia's story even more intriguing is the fact that the State was able to tie energy performance to the cost of its vocational training program. It means optimizing building performance to save community resources while providing inmates with marketable skills, fighting crime through education, and making communities safer. It's an idea with potential at the local level—one that can help ensure less costly, more comfortable and sustainable corrections environments and safer communities, where offenders have a better chance to become productive, tax-paying citizens. ■

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