

## CASE STUDY

STRATEGIC MARKET POSITIONING FOR PHYSICAL  
(BALLISTIC) SECURITY PROTECTION SOLUTION FOR  
ELECTRIC POWER GRID



### CLIENT

Frontline Ballistic Barriers, a Georgia (USA) – located creator and manufacturer of protective barriers and fences.

### PRODUCT

Fence that inhibits the damage from discharge of firearms

### TARGET MARKET

Power grid owners and operators (utilities, transmission and distribution companies)

### TARGET GEOGRAPHY

USA

### PROJECT OBJECTIVE

Assess the product's acceptance by the industry and recommend the strategy on approaching it

## Business Opportunity

Frontline Ballistic Barriers (Client) has invented a security fence specifically designed to inhibit the damage from either an accidental or intentional discharge of firearms. As the Client was looking to expand its customer base into the power electricity industry, OVG was engaged to assess the potential for the product's acceptance by the electric power distribution sector and recommend strategies for entering this market.

## Business Analysis

The study was based on fundamental analysis of supply and demand for bullet-proof protection from the electrical distribution sector.

OVG studied existing and pending competing products and services. Results of the examination showed that similar market offerings provide protection only from intrusion, there are no other products that also defend from firearm damage.

Assessment of industry demand for the product included detailed analysis of documented cases of intentional damage from firearm attacks to the electrical distribution transformers, stations and substations.

The study disclosed that the number of such attacks has been historically lower than other types of damage to the grid. Furthermore, these firearm attacks do not necessarily result in installation of defensive fencing by utilities. This partially happens because of the high cost of additional investment which has to be passed on to the consumers and requires filing with regulatory authorities. In addition, contingency measures, which are required to be in place by law, ensure an adequate level of service reliability; this effectively mitigates the urgency to invest in protective installations.

As utilities are reluctant to invest in protective fencing voluntarily, OVG examined whether there are existing or pending regulations or legislation that would demand utilities strengthen their power grid physical security. OVG researched security standards, federal and regional policies, programs and standards, and regional and State initiatives.

The research showed that the issue of vulnerability of the power grid to physical damage had been gaining regulatory attention. Mandatory physical security standards for national critical assets have already been introduced. Meanwhile, classification of what constitutes national critical assets in the mandatory standard regulations is not well defined and allows for various interpretations. Hence it is up to a utility to conclude on the criticality of its assets and decide whether it will take steps to comply with any given set of standards. Obstacles in targeting utilities arise from variability in facilities' design configuration and operating profiles, which directly influences requirements for security measures. Financing of these measures is challenging, especially for smaller utilities.

OVG recommended that the Client approach the target market in a flexible manner and adjust their marketing message for each utility warranted by the internal operational specificities, geographic location, history of regional events, financial capacity and justification for their assets to be classified as "critical assets".

## Results

The study surfaced the fact that physical facilities security was a topic within the grid security community and the U.S. Homeland Defense agencies' domain. As such, the Client was able to demonstrate to potential customers that there is a growing concern for physical defense systems at key grid locations today. Furthermore, government agencies may in fact extend requirements for physical protection in the near future.

The Client developed a marketing approach which was flexible in nature to make the Product more cost effective to different size utility customers. Instead of marketing that the ballistic barrier be placed around the entire circumference of any given facility, the areas set for protection were reduced to specific high-risk portions of the interior of the facility. This included back-up power generation units and control panels along with other critical operating systems needed to maintain the substations.

Because of the modular design of the barriers, any configuration or length of barrier can be quickly engineered for any specific site. Should a facility be expanded, the barrier can quickly and cost effectively be extended to suit new equipment or expansion.

The Client developed different protective "Tiers" of barrier, with the lowest designed to protect against incidental incidents (i.e. accidentally hunting rifle rounds) all the way up to full major caliber weapons protection. Higher Tiers are designed to withstand significant repeated weapons discharge incidents (i.e. planned terrorists type attacks). This latter level is meant for areas that are deemed by Homeland Security reviews as critical grid infrastructure in major use areas. The use of the Tier system allows customers cost effective options that suit their specific needs.

Within the first year after completion of the study, the Client sold nearly 20 barrier systems to a major transmission corporation located in the State of Georgia. These are considered prototypes because the individual facilities selected vary significantly in size and footprint configurations.

*"Understanding the fluid nature of regulated change that is inherent in today's energy business makes having a partner like OVG Consulting essential. Without the understanding of federally mandated grid security requirements and the predictive utilization analysis we receive from the OVG experts we would not have the competitive edge we routinely provide for our customers."*

Jeff Ferguson,  
Founder and President,  
Frontline Ballistic Barriers

**Within the first year after completion of the study, the Client sold nearly 20 barrier systems to a major transmission corporation located in the State of Georgia. These are considered prototypes because the individual facilities selected vary significantly in size and footprint configurations.**